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FACTORS AFFECTING TEACHERS' PROFESSIONAL PERFORMANCE IN THE SULTANATE OF OMAN

SAID SALIM HAMED AL-HARTHY

Thesis Submitted to the Faculty of Education, University of Malaya
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Synopsis

This research tests a path analytical model of five factors affecting teacher professional performance in the Sultanate of Oman. Data of 236 teachers from the second cycle of basic education system in Oman were analyzed using the path analysis approach with AMOS 18.0 software. The procedures included a) preliminary analysis for the normality and the statistics, b) path analysis to test the goodness-of-fit, to estimate the effects (direct, indirect, and total), to build the parsimony model, and to study the moderator effects of groups. The conceptual framework guiding this study was based on the theory of performance (Campbell et al., 1993), theory of reasoned action (Fishbein & Ajzen, 1975), and the history of the theoretical work; related studies. The instruments of this research were scale of teachers' attitudes towards teaching and the Omani teachers' professional performance evaluation instrument.

All research and statistical hypotheses were tested at .05 significant level. Findings of the fit tests indicated a good fit indices with the overall sample data (χ^2= 3.64, df = 4, p = .457). The path analytical model of factors affecting teachers professional performance has approved that there are only two factors affecting, directly, the teachers performance. They are teachers' work experience (β = .25, p < .05) and the cumulative grade point average (β = .44, p < .05). Whereas, teachers' attitudes towards teaching, in-service training, and teachers' self-professional development are, statistically, non-affecting factors. Also, the path analytical model of factors affecting teachers’

professional performance has proved that there is only one factor having an indirect effect on the teachers' performance through the work experience. That is the in-service training factor by significant value 0.09 of standardized path coefficient. Findings also show that there are nine total effects among the model variables. The weakest is the total effect of self-professional development on teachers professional performance and the strongest is total effects of teachers' attitudes towards teaching on self-professional development.

Finally, the comparison tests between path models of teachers' gender and their specialization reveal significant difference between male and female models and between applied and human science teachers' models. Therefore, both gender and specialization of Omanis teachers are considered to be moderators for the relationships between the studied factors of the fitted path model.

Faktor-Faktor Mempengaruhi Prestasi Profesional Guru

Di Kesultanan Oman

Sinopsis

Kajian ini menguji *path analytical model* lima faktor yang mempengaruhi prestasi profesional guru di Kesultanan Oman. Data 236 guru dari pusingan kedua system pendidikan asas di Oman dianalisis menggunakan *path analysis approach* perisian AMOS 18.0. Prosedur yang dijalankan merangkumi a) analisis preliminary normaliti dan statistik, b) *path analysis* untuk menguji *goodness-of-fit*, untuk menjangka kesan (langsung, tidak langsung, dan keseluruhan), untuk membina *parsimony model*, dan meneliti kesan moderator bagi kumpulan. Kerangka konseptual yang membimbing kajian ini berdasarkan teori prestasi (Campbell et al., 1993), teori *reasoned action* (Fishbein & Ajzen, 1975), dan sejarah *theoretical work; related studies*. Instrumen kajian adalah skala sikap guru terhadap pengajaran dan instrumen penilaian prestasi profesional guru-guru Omani.

Semua hipotesis kajian dan statistik diuji pada tahap signifikan .05. Dapatan *fit tests* menunjukkan *good fit indices* dengan keseluruhan data sampel kajian (χ^2 = 3.64, df = 4, p = .457). *The path analytical model of factors* yang mempengaruhi prestasi profesional guru menunjukkan hanya dua faktor mempengaruhi prestasi guru secara langsung. Ini merupakan pengalaman guru (β = .25, p < .05) dan *cumulative grade point average* (β = .44, p < .05). Di sebaliknya, sikap guru terhadap pengajaran, latihan dalam perkhidmatan, dan

teachers' self-professional development tidak merupakan factor yang signifikan dari segi statistik. Model *path analytical* bagi faktor yang mempengaruhi prestasi professional guru juga membuktikan hanya satu faktor mempunyai kesan tidak langsung ke atas prestasi guru melalui pengalaman pekerjaan. Ini adalah faktor latihan dalam perkhidmatan yang mempunyai nilai signifikan 0.09 *standardized path coefficient*. Dapatan kajian juga menunjukkan terdapat sembilan kesan total dalam *model variables*. Yang paling lemah adalah kesan total *self-professional development* ke atas prestasi profesional guru dan yang paling kuat adalah kesan total sikap guru terhadap pengajaran ke atas *self-professional development.*

Akhir sekali, ujian perbandingan antara *path models* jantina guru dan pengkhususan mereka menunjukkan perbezaan signifikan antara model lelaki dan wanita dan antara model *applied science* dan sains kemanusiaan. Oleh itu, kedua jantina dan pengkhususan guru-guru di Oman di kira sebagai moderator bagi perkaitan antara *studied factors* untuk *fitted path model* tersebut.

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CHAPTER ONE

1.1 Introduction

The Sultanate of Oman has intended to benefit from the educational services provided by local and international organizations in a way that fulfils its objectives and meets the priorities of the country. Oman has established cooperative relations with organizations such as the Education Bureau of the Arab Gulf Cooperation Council (GCC), the Arab League Educational, Cultural and Scientific Organization (ALECSO), the Islamic Organization for Education, Culture and Science (IOECS), the United Nations Educational Scientific and Cultural Organization (UNESCO) and the United Nations Children's Fund, UNICEF (Ministry of Education, 2011).

Two international conferences held by the Ministry of Education in the Sultanate of Oman in 2002 discussed significant advances in the education system. The first one explored the future development of secondary education in grade 11 and 12, while the second addressed the future of Post Basic Education. Those two conferences were multi-activity events including symposiums, workshops and other conferences that had been organized by the ministry during the last ten years. They form part of a long term scheme adopted by the Ministry to improve education in Oman. One of the policies of this scheme is to use Basic Education as one of the main alternatives to replace General Education. The papers at those conferences and symposia dealt with several topics involving all

aspects of the teaching and learning processes. They targeted students as the focus of the learning process and the teacher as the backbone of the teaching process. They also covered areas such as curricula, school management, school premises, and so forth (Ministry of Education, 2002).

In order to enhance factors that would contribute to the success of its Basic Education implementation plans, the Ministry of Education in Oman executed training programs to develop teachers and improve their professional performance. A program to upgrade teachers who hold education diplomas to a bachelor and postgraduate degree level has been launched to improve the professional standard of those teachers. The Ministry of Education believes that the success of these learning projects requires several factors built on common visions, clear objectives, ensuring necessary resources and teacher training and qualifying programs. The concerned officials of the ministry put human resource development at the top of the educational development plans with specific consideration to teachers.

1.2 Educational Status in Oman

The current status of education in Oman is based on several stages since 1970, which is considered as a first real stage beginning with only three schools in the whole country. Therefore, Oman has had a non-formal educational system throughout its history. However, the history of the modern educational system is not long. The document on Philosophy of Education issued in 1978 by the Ministry of Education is considered a set of principles, beliefs, concepts and

obligations, stated in an integrated manner that serves as a guide for the education process in Oman. It is based on research on the conditions existing in Omani society, its development needs, best international educational practice and the role that Oman's educational process must play in meeting national aspirations.

Education development in Oman is categorized into three stages: (1) stage one emphasized the rapid quantitative development of education; (2) stage two started in the early 1980s, when the Ministry of Education initiated serious efforts to improve the quality of education; and (3) stage three began from 1995, after the Conference on Oman's Economic Future, Vision 2020, when a number of reforms were introduced in order to cope with future educational requirements (Ministry of Development, 1997).

The following principles represented the important elements of the Philosophy of Education in Oman (Ministry of Education, 2010):

1. Developing the individual in an integrated manner with regard to physical, intellectual, spiritual, societal and emotional aspects;
2. Developing Omani originality and identity derived from Islam, the Arabic language and the country's rich culture;
3. Modernizing society and dealing with modern technology: a world, which is witnessing an explosion of knowledge, rapid technological developments and numerous inventions in all fields of life, presents a challenge for education to ensure that individuals acquire and develop skills in these new technological approaches;

4. Adopting a scientific thinking approach by developing the mental abilities of individuals and providing them with scientific and critical thinking capabilities to enable them to employ these skills in their daily lives and, in addition, to master the basic skills in more than one language;

5. Encouraging self-learning skills in order to make education sustainable throughout an individual's life;

6. Promoting new instructional strategies, such as experiential learning, which help to make learning more meaningful;

7. Supporting economic development and vocational training: education promotes values that complement national development aspirations, such as the development of a work ethic and the use of modern technologies. Education also promotes manpower capabilities through training and provision of knowledge and skills;

8. Encouraging national unity and a sense of belonging to the Gulf region and the Arab World;

9. Developing feelings of national pride and patriotism among citizens, thereby encouraging national security and stability;

10. Promoting social liberation by encouraging a spirit of cooperation and collective activity in the public interest;

11. Protecting the environment: while accepting the need to raise living standards, education also attempts to encourage citizens to protect the quality of their lives by balancing development needs with natural resource conservation;

12. Developing emotional attitudes and values among individuals;

13. Encouraging international peace and understanding through the development of the values of tolerance, understanding and mutual respect;

14. Encouraging individuals to make productive use of their spare time.

Figure1.1 represents the major principles of the Education Philosophy in the Sultanate of Oman.

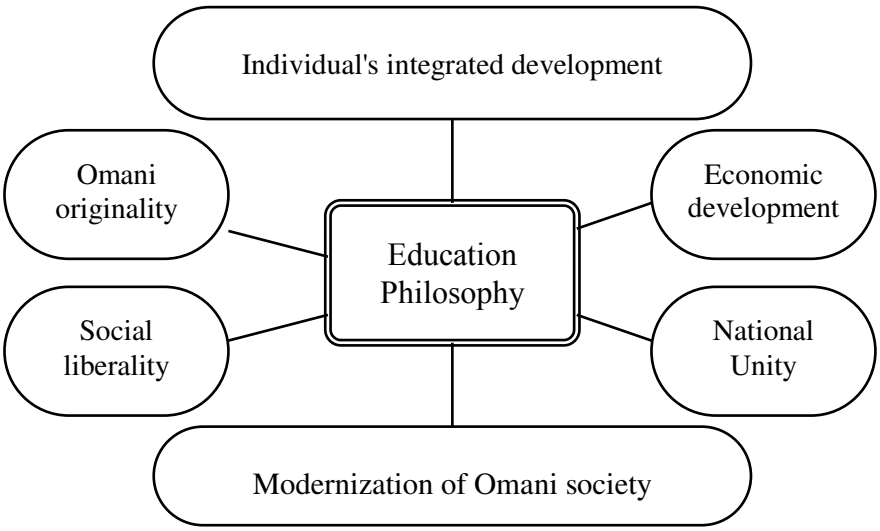

Figure 1.1. Major principles of the education philosophy in Oman (Ministry of education, 2010).

Over the last three decades, the Philosophy of Education in the Sultanate of Oman has been – and still is – considered to be a primary reference for education.

The General objectives of education in the Sultanate of Oman are:

Developing the mental abilities. In this respect education aims at providing members of the society with basic knowledge and to develop mental abilities

which they will need to make use of throughout life. Individuals should comprehend scientific facts and practical skills and should understand life objectively. Learners should learn reasoning and should gain creative and initiative abilities and to use such skills and abilities throughout their life.

Islamic education. It aims at making learners acquire the basic facts of Islam and its ideals which lead to believe in God. Islamic education aims also to make learners interact throughout their life according to the instructions of religion, following its orders and avoiding its prohibitions. Learners should follow the instructions of religion in speech, deeds and behavior.

Physical education. Education takes care of the proper physical development of the learner. A healthy body is an indication of psychological and mental health. The participation of learners in life depends on their physical health. Education aims also to help leaners gain the proper habits in eating, drinking, working and in relaxing. It also helps the learners to know how to protect and cure themselves from diseases.

Emotional education. Education aims at developing positive emotional trends of the learner towards nature, work, society and arts. Thus the learner would respect nature, love it, sense its beauty and preserve and maintain it. Education is also aimed at making learners appreciate innovations and inventions, especially those produced in the Islamic or Arabic world.

Education for earning living and respect of work. In this respect, education is concerned with enforcing the proper concepts towards work and how to respect it regardless of the job title. Education also is concerned that learners

should acquire a good understanding of the nature of jobs and common professions which are practiced in the community and their importance to society. Learners should be provided with the necessary skills to enable them to practice a certain profession and to make them able to improve and develop their performance.

Education for economic investment. Education nowadays is considered as human and economic investment which directly participates in development projects and which leads to the increment of national income. It is an objective of education to meet societal needs for skilled manpower at all levels in order to carry out developmental projects. Higher education specialization is also required according to development needs.

Civic education and politics. Education aims at educating Omani citizens regarding their rights and duties towards their country, and their obligations and commitments towards their nation. It is civic education that enables learners to know their rights and duties.

Education for proper use of spare time. Education is concerned with developing the learners' abilities to use their spare time properly through training them to practice suitable hobbies according to their tendencies and abilities. Such hobbies will develop their tastes and creative abilities.

Permanent education. It is a new concept in the filed of education. It aims at providing all possible educational facilities by all means to all members and classes of society according to their abilities and interests throughout their life (Ministry of Education, 2011).

1.3 The Need for Reformation of the Educational System in Oman

The Ministry of Education Oman had serious reform in its educational system as response for societal, economical, and technological demands in the Omani context. These demands represented the country needs to diversify the economy and keep pace with technological change, require new educational goals to prepare Omanis for life and work in the new conditions created by the modern global economy. In order to meet such needs, the Omani Educational system should possess a high degree of adaptability and a strong background in mathematics and science (Rassekh, 2004). Based on that, the proposed innovation targeted the knowledge and critical skills and aptitudes that young Omanis will need to cope with prospective job market or higher studies.

The first 25 years of the reign of His Majesty the Sultan were characterized by a rapid expansion of educational services. From 1976 onward, all Ministries in the Sultanate of Oman began to plan their development activities in accordance with Five Year Plans drawn up initially by the Development Council and later by the Ministry of National Economy.

Oman 2020 represents the master plan established by the future vision conference of Oman's economy which was held in July 1995. The conference proceedings recognized that the world today is changing at a faster rate and in more fundamental ways than ever before. The acquisition of global knowledge, information and technology and the development of advanced human skills are becoming crucial prerequisites for progress. It was proposed that the country should achieve the following by the year 2020:

1- An efficient and competitive private sector;

2- A diversified dynamic globalized economy;

3- Well developed human resources; and

4- Sustainable development within a stable macro-economic framework.

The conference report was endorsed by the government and its findings became part of the legal framework that the Ministry of Education had to work within. Therefore, the Fifth and Sixth Five-Year Plan (1996-2005) had several aims to achieve such as reducing the number of double-shift systems in schools, developing the curriculum, increasing Omanization, encouraging training of teachers, developing secondary education, developing educational research, expanding technology use in schools, developing the assessment system, encouraging the expansion of private education and developing programs for the eradicating illiteracy and expanding special education facilities.

In November 1996, His Majesty Sultan Qaboos issued the Royal Decree No. 101/96 with regard to the Basic Statute. Article 13 of this Statute deals with matters relating to education, states that:

1. Education is a cornerstone for the progress of society which the state fosters and endeavors to spread and make accessible to all;

2. Education aims to raise and develop the general cultural standard, promote scientific thought, kindle the spirit of research, respond to the requirements of economic and social plans, build a generation that is physically and morally strong and takes pride in its nation and heritage and preserves its achievements;

3. The state provides public education, works to combat illiteracy and encourages the establishment of private schools and institutes under its supervision and according to the provisions of the Law (Ministry of Education, 2010).

The Omani Ministry of National Economy draws up the general overall aims for the country's development and objectives for all government sectors through a series of five-year plans. For example, with regard to education, the Sixth Five Year Plan (2001-2005) specifies the following general aims:

1) Continuing the expansion of education to make it available to all;
2) Developing education through:
    - abolishing the double-shift system in schools;
    - expanding the implementation of Basic Education;
    - developing the curriculum;
    - increasing Omanization in the education sector;
    - developing secondary education;
    - developing educational research;
    - expanding the use of technology in schools; and
    - developing the assessment and evaluation system;
3) Encouraging the expansion of private education;
4) Developing programs for the abolishment of illiteracy; and
5) Expanding special education facilities.

As a response to the above, the Ministry of Education took steps to ensure that students would be adequately equipped for the requirements of further and higher education, the labor market and modern life generally. To achieve this, the

Ministry of Education agreed that the educational content and teaching and learning strategies in the school system required urgent and thorough reform.

1.3.1 Basic Education versus General Education

Twelve years of government schooling was offered free of charge to all Omani children. General Education, as the first system of education during the period from 1970 to 1996, was organized into three stages: elementary (6 years); preparatory (3 years); and secondary education (3 years).

With stilling of General education system in some schools until now, the Basic Education, as a first vision for reforming, began in the 1998-99 academic year in 17 schools distributed in the country's educational governorates. In Basic Education, which is taken as an alternative to General Education, students spend ten academic years. Those who pass grade ten move to a Post Basic education stage which includes grade 11 and 12. The first ten years are divided into two cycles; the first cycle includes grades from 1 to 4 while the second one includes grades from 5 to 10. Figure 1.2 represents the educational stages in Oman (Ministry of Education, 2002).

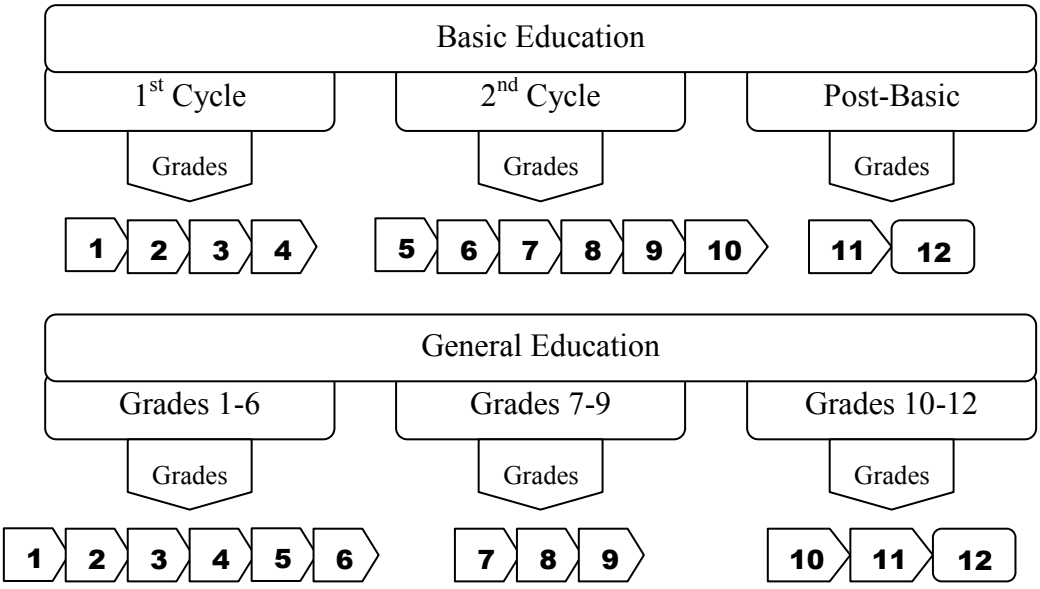

Figure 1.2. The educational stages in Oman.

In fact, the movement in favor of basic Education for All (EFA), supported by the United Nations Educational, Social and Cultural Organization (UNESCO) and the United Nations Children's Fund (UNICEF) throughout the world, recommending a longer period of compulsory education for all children and youth, has received a favorable response from Oman.

For both the General and Basic system of education the Ministry of Education is committed to the principle that all children should have access to education, regardless of their gender, social status, cultural group or area of residence. The ministry's policy has been to mount a sustained campaign to raise people's awareness of the importance of education for their present and future well-being. To encourage school attendance, the government provides free education from Grade 1 to Grade 12, as well as literacy and adult education

(Ministry of Education, 2011). Table 1.1 shows the increase in number of schools in Basic Education over fifteen years from 1997 to 2012.

Table 1.1

Number of Schools in Basic and General Education

Academic Year	Number of Schools in General Education	Number of Schools in Basic Education	Percentage (%) of Schools in Basic Education
1997/1998	1057	0	0
2010/2011	24	1033	97.7

Since Basic Education was implemented in 1998, reforms included curricula, teaching and learning methods, evaluation strategies and school infrastructure. In order to support these reforms, school buildings had to be modified. The typical provision for Basic Education schools is as follows (Ministry of Education, 2010):

- 30 classrooms for Cycle One schools and 40 classrooms for Cycle Two schools. Each room measures 49 square meters.
- In Cycle One schools, a learning resource center measuring 126 square meters and equipped with fifteen computers and a range of audio visual aids and print materials.
- In Cycle One schools, a multi-purpose hall that measures 126 square meters and is used for school meetings and activities.

- In Cycle Two schools, a computer laboratory that measures 98 square meters and is equipped with 20 computers, TV and video is found. These schools also have a library containing a variety of books and magazines.
- In Cycle Two schools, six fully furnished and equipped science laboratories are found.
- In Cycle Two schools, two halls, one for extra-curricular activities and one for environmental life skills are found.
- In both Cycle One and Cycle Two schools, four rooms for the administrative staff exist.
- In both Cycle One and Cycle Two schools, two teachers' staff rooms exist.

Table 1.2 shows the action plan for implementing Basic Education (Grades 1-10) during the period from 1998 to 2009 (Ministry of Education, 1998).

Table 1.2

Action Plan for Implementing Basic Education in Oman

Academic year	Grade(s)	Five-Year Plan
1998/1999	1 & 2	
1999/2000	3	5th Plan
2000/2001	4	
2001/2002	5	
2002/2003	6	
2003/2004	7	6th Plan
2004/2005	8	
2005/2006	9	
2006/2007	10	
2007/2008	11	7th Plan
2008/2009	12	

A new Basic Education curriculum has been developed by the Ministry of Education. As part of the reform procedures, this curriculum equips students with a learning experience firmly rooted in Islamic principles and Omani cultural identity while following international best practice and is relevant to the rapidly changing world of the 21st century. The reformed curricula does not only include new subject areas, but curricular content taught within existing subject areas has been rewritten to include real-life contexts and opportunities for experiential learning (Ministry of Education, 2010).

Stages of curriculum development began with grade one in 1997 and it covered all curriculum requirements such as textbooks, teachers' guides, group-work materials, activities media and multimedia.

Because the teacher-centered approaches had been dominant in the General Education system, reforming has suggested that teaching and learning approaches that allow students to merely read, listen and watch are not particularly effective in getting them to learn. Moreover, the learning materials used in teacher-centered approaches often contain theoretical content of little relevance to the present and future needs of students. Students were expected to do little more than rote learn information contained in the materials. The shift away from teacher-centered learning to student-centered learning in Basic Education has also required a reduction in class size. The aim of the Basic Education teacher is to create a learning environment that makes it possible for students to learn how to learn and encourages them to take responsibility for their own learning.

Post-basic Education which includes Grades 11 and 12 began in the academic year 2007/2008 in Grade 11 and the academic year 2008/2009 was represented the last year of implementation of this new educational level.

The reform plan began with a consultancy study by the Centre for British Teachers (CfBT) that offered recommendations leading to the creation of a comprehensive new curriculum, instruction and assessment models for grades 11 and 12, and a plan for development and implementation (Centre for British Teachers, 2001).

This stage of education, namely Post-basic Education, aimed at achieving a consensus on suitable curricula and assessment options for it. Because of the challenges faced by the graduates of general education in the secondary school, such as impossibility of many students going on to higher education or other further education after completing Grade 12, consideration had to be given to the present and future developmental needs of the country, and to the likely destinations of Omani school leavers. On the basis of this evidence, the Ministry of Education was advised that preparation for university as a primary goal of secondary education is not appropriate.

The Ministry of Education in Oman regards human resources as a key factor for successful implementation of its reform program and for developing a quality education system. Moreover, since human resources, particularly teachers, represent by far the ministry's most significant investment, it is keen to promote a working environment that encourages a well-trained, well-informed and highly motivated staff.

1.3.2 Teachers' Pre-service Training as part of the Reform Project

Pre-service training for Omani teachers is presently carried out by the Ministry of Higher Education, which oversees teachers' colleges, Sultan Qaboos University, a number of private universities in Oman and some institutions outside the country. Every year a big number of Omani nationals join the teaching profession. We can divide those teachers into two categories according to from where they graduate. Most Omani teachers graduate from the government's local

colleges of education, while the others come from different colleges and universities abroad.

Every year, the college of Education at Sultan Qaboos University graduates teachers who specialize in different areas of teaching. They complete four academic years with a total of 132 credit hours in their area of specialization. They attend a teachers' training course which lasts for 9 credit hours in the governmental schools during the last semester. Table 1.3 shows the distribution of credit hours in the Faculty of Education in Sultan Qaboos University.

Table 1.3

Distribution of Accredited Hours in College of Education in Sultan Qaboos University.

S.N	Course type	Credit Hours	Percentage (%)
1	Educational	39	29
2	University requirements	18	14
3	Teaching Practice	9	7
4	Specialization	66	50
	Total hours	132	100

Table 1.3 shows that teachers graduated from Sultan Qaboos University use trained have ally on their specialization courses (50%) if compared to (7%) of actual field work teaching. This gives the impressions that they were not given enough opportunity to practice teaching before service in the schools. It is worth mentioning that scientific specialization courses are provided in English language which is not applied in other colleges of education.

The other group of teachers who obtain their degree inside the country are those who graduate from the colleges of education, which are established and supervised by the Ministry of Higher Education. These teachers attend a four academic year program consisting of 132 credit hours in specialized and educational fields divided into four components as in Table 1.4 (Ministry of Higher Education, 2007).

Table 1.4

Distribution of Accredited Hours on Program's Components

S.N	Component	Accredited hours	Percentage (%)
1	Cultural	12	9.09
2	Professional	24	18.18
3	Practicum	16	12.12
4	Specialization	80	60.61
Total of hours		132	100

The second group of teachers includes those who obtain their qualification in universities and colleges abroad. Those teachers study in such foreign institutions either through governmental scholarships or private funding. They are prepared according to the local programs applied in those countries which are approved by the Omani Ministry of Higher Education.

1.3.3 Teachers' In-service Training as part of the Reform Project

Teachers in one school, for example, might decide that their main training priority is to receive help on how to increase their students' reading and writing skills. School staff could draw up plans on how the teaching of these skills could be integrated across subject areas and what kinds of professional development activities they would require to help their students achieve the new desired targets. Teachers in another school, on the other hand, might decide that training in formative assessment techniques is their main priority while, in yet another school, teachers may want training on classroom management methods for differentiated learning. A school-based staff development program would allow such differing priorities and needs to be satisfied (Ministry of Education, 2010).

To ensure right implementation of the innovation, the Ministry of Education has placed particular emphasis on its professional development programs with administrative staff involved in the Basic Education reforms and with the school teachers. The main aim of these in-service training programs is both to help prepare schools teachers before they begin teaching to the new reformed arrangements and to offer on-going support when they are involved in the process. Before starting practical service, teachers are trained during their study years, as has been mentioned earlier in this research. After joining service with the Ministry of Education, teachers are provided with training on curricula and changes that may occur in them. Such training is not provided immediately after they join the service; it is subject to circumstances of their work. Some teachers get such training immediately after being hired. Others may be trained in

the next few years according to their specialization, training programs availability and curriculum requirements.

As in Figure 1.3, there are two types of training, 1) Centralized training which is provided by the Ministry in its premises, and 2) Decentralized training which is provided by the educational governorates in accordance to local planned programs; it is carried out either in the educational premises or its schools.

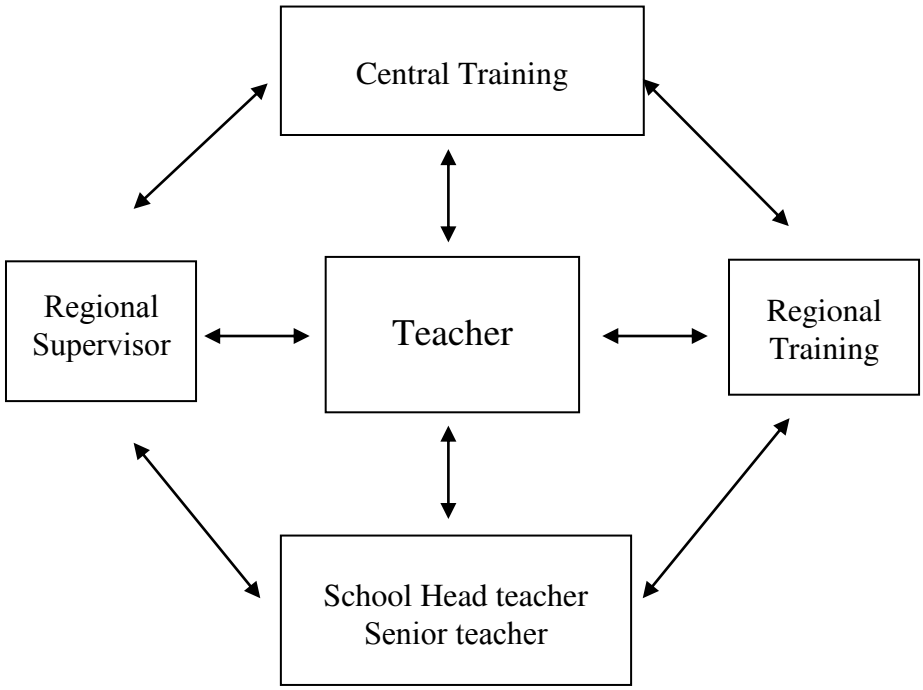

Figure 1.3. Model for teacher's professional development in Oman.

Training requirements decide the nature of training. The department of Human Resources in the Ministry of Education is responsible for doing an annual enumeration for such requirements. We can summarize the most important requirements of training in the following:

1. Curricula development;
2. Performance Technical observations;
3. Development of teaching methodologies and evaluation;
4. Adoption of experimental education projects;
5. Adoption of certain educational, social and environmental projects; and
6. Replacements of educational systems.

1.4 Teachers' Performance Evaluation in Oman

Every year teachers receive a group of class visits to evaluate and improve their professional performance. Such visits are paid by first teachers, if any, school headmaster and the subject technical supervisor. Every one of those visitors has his or her own tools to accomplish the mission. Regardless the benefits acquired from these visits across the year, there is a final unified evaluation for all teachers in all schools. This evaluation process deals with all teachers regardless of the origin of their qualification, specialization, and experience. The tool used for this process is called Teachers' Professional Performance Evaluation Form (TPPEF). Developed in 1991 by the Ministry of Civil Service, this form has been used for more than 20 years in the Sultanate of Oman. It was designed by several local and foreign experts. It covers 20 elements; 8 of them used to assess professionalism and personal behavior and the other 12 elements to assess competency in performance. Based on a 5-point Likert scale, each element takes a rating from 1 for low performance to 5 for exceptional performance.

The pool of Omani teachers come from several universities and colleges such as Sultan Qaboos University (SQU), teachers public colleges under the Ministry of Higher Education, local private university and foreign universities around the Gulf area. Regardless of the origin of teachers' qualifications and experiences, Omani teachers have been for the past twenty years subjected to a formal appraisal by the Ministry of Education. The evaluation is usually done at the end of the schooling year which is around May.

1.5 Statement of the Problem

In all of education sectors, one of the issues relates to teacher development programs is the performance appraisal process. Hakamy (2003) argues that this process helps in making judgments on the agreeability between the requirements of the teaching profession on one hand, and teachers' qualifications and their psychological, cognitive and social characteristics on the other hand, as well as discovering strengths and weaknesses in teachers' performance; this enables the educational institution to develop strategies for improving and enhancing performance.

Most of the related studies have focused on teachers' performance appraisal by investigating the impacts of some factors on their professional performance which are unavailable in the Omani teachers' appraisal system. Factors found to impact on teachers' performance are motivation, psychological attitudes, working experience, in-service training, qualification, as well as psychological and social factors. Examples of the studies that tackled these factors are Aronson, Lisa, and

William (2007), Akkus (2010), Al-Toobi (2004), Andrews and Hatch (2002), Chambers and Hardy (2005), Clotfelter, Helen, and Jacob (2007), Darling-Hammond (2003), Duatepe and Oylum (2004), Erawan (2010), Harris and Sass (2008), Jamil, Atta, Ali, Baloch, and Ayaz (2011), McNergney and Satterstrom (2004), Nadeem et al. (2011), Penuel, Fishman, Yamaguchi, and Gallagher (2007), Reid and Caudwell (1997), Rice (2005), and Smithers and Robinson (2001, 2003).

Teachers' professional performance appraisal process in the Sultanate of Oman is conducted through class visits. Such visits are done by first teachers, school headmasters and the subject technical supervisor. Every one of those visitors has his own instruments to evaluate the teacher. By the end of every year, there is a final unified evaluation form for all teachers in all educational governorates. This evaluation process relies mainly on performance, as described in chapter 3, and it neglects the other factors which are pointed theoretically to be shaping the teachers' performance such as their attitudes towards teaching, working experience, in-service training and self-professional development.

So, there is a need to do the best possible to bridge the gap between usual teachers' evaluation practice in Omani schools and the theoretical assumptions regarding how best teachers can be evaluated. This study as well contributes to the rapidly expanding literature on teacher professional performance in a number of ways. First, it is a large-scale study to simultaneously control relationships through the use of multiple levels effects by taking into account the modeling of interaction, correlated independents, and deal with dependent variables as predictors for another dependent variables (Stage, Carter, & Nora, 2004). Path

analysis (PA) is a suitable methodology to be adapted. Second, while most recent research has focused on teacher performance and students' achievement as the main indicators of teachers' professional performance evaluation, this study is the first analysis to concurrently estimate the impacts of the teachers' attitudes towards teaching, work experience, cumulative grade point average, in-service professional training, and self-professional development on the professional performance of teachers in the Omani context. Finally, the study tries to measure the various factors at a finer level than in most prior studies, including distinguishing specific types of relationship among factors and differentiating between different kinds of professional development motivators to enhance teachers' productivity.

Therefore, this study attempts to model factors affecting teachers' professional performance in the Sultanate of Oman.

1.6 Research Objectives

This study is aimed at evaluating the impact of some psychological, professional and academic factors on teachers' performance using the path analysis approach. Teachers' attitude towards teaching, work experience, in-service training, cumulative grade point averages, and self-professional development are the factors modeled as a causal relationship. Therefore, the study tries to the best possible:

1- To develop and test a model that explains five factors affecting Omani teachers' performance.
2- To study the direct effect of teachers' attitude towards teaching, work experience, in-service training, cumulative grade point average, and self-professional development on the Omanis teachers' professional performance.
3- To determine the indirect effects which are estimated by the fitted model.
4- To determine the total effects which are estimated by the fitted model.
5- To build the parsimony model of factors affecting teachers' professional performance.
6- To study the moderator effects of teachers' gender and specialization.

1.7 Research Questions

This research tries to answer the following questions through studying the causal relationship between the modeled factors. These research questions are:

1. Does the path model produce an estimated population covariance matrix that fit the overall sample data?
2. What are the direct effects estimated by the fitted model?
3. What are the indirect effects estimated by the fitted model?
4. What are the total effects estimated by the fitted model?
5. What is the parsimony model of teachers' professional performance?

6. Are there moderator effects of gender and specialization on the fitted model?

The following research and statistical hypotheses were postulated to answer the above research questions.

1.8 Research and Statistical Hypotheses

$\mathbf{H_{0(1)}}$: An estimated population covariance matrix is consistent with the sample data.

$$[\ \mathbf{H_{0(1)}}: \Sigma(\theta) = \Sigma\ ]$$

$\mathbf{H_{0(2)}}$: There are no significant direct effects estimated by the fitted model at the level of 0.05.

$$[\ \mathbf{H_{0(2)}}: \beta_{(a,b,..,n)} = 0\ ]$$

$\mathbf{H_{0(3)}}$: There are no significant mediation effects estimated by the fitted model at the level of 0.05.

$$[\ \mathbf{H_{0(3)}}: \beta_{(ab,ac,..,\ an)} = 0\ ]$$

$\mathbf{H_{0(4)}}$: There are no total effects estimated by the fitted model at the level of 0.05.

$$[\ \mathbf{H_{0(4)}}: \beta_{(Total)} = 0\ ]$$

$\mathbf{H_{0(5a)}}$: There are no differences between the estimated effects in male's and female's groups.

$$[\ \mathbf{H_{0(5a)}}: \beta_{(male)} = \beta_{(female)}\ ]$$

$\mathbf{H_{0(5b)}}$: There are no differences between the estimated effects in applied and human's science teachers groups.

$$[\ \mathbf{H_{0(5b)}}: \beta_{(applied\ sci.)} = \beta_{(human\ sci.)}\ ]$$

1.9 Level of Significance

To answer the research questions, all research and statistical hypotheses are considered at level of significance $\alpha = .05$.

1.10 Significance of the Research

Studying the factors affecting Omani teachers' professional performance has a number of implications.

1.10.1 Exploring Teachers' Attitudes towards Teaching

As teachers are considered to be the cornerstone of the educational process, their attitudes have a significant impact on their performance. This fact was proved by most researches. The National Centre of Educational Statistics in USA states the following as some educational behaviors for improving teachers'

positive attitudes towards teaching; these behaviors are aimed at improving the teachers' personality towards themselves and others (Lumsden, 1998):

1- Positive relations between teachers and school principals;

2- Student behaviors towards learning and teaching;

3- Suitability of work given to the teacher;

4- Supporting of students' parents; and

5- Students' high achievement.

Liven and Grab (in Fahmi, 1977) hold that attitude change is possible. They say that we can do a lot of things to change or modify the psychological field of someone. It indicates that we can impart attitudes and teach them just like we do with other things. So the Education is a group of activities or well studied, systemized and accepted efforts used to transfer, arouse and impart the required knowledge, altitudes, values and skills (Yasin & Alshiekh, 1988).

Teachers are facing many annoying actions in their profession, especially those working in the rural area. In fact, like these challenges are unsatisfactory in the field of teaching. They almost reduce attitudes towards the profession (Parky, Stanford, & Bacon, 1997).

Yearly, the Ministry of Education in Oman is also facing the problem of working in rural area by the new graduates. This problem appeared when the policy of Omanization in the teaching professional began to cover all government schools. Thus, the researcher is interested in determining Omani teachers' attitudes towards teaching and its impact on their professional performance. This

would result in designing professional programs designed to enhance Omani teachers' attitudes towards teaching.

1.10.2 Enhancing Teaching Satisfaction

Due to the low standards of students' achievement throughout the past years, many complaints have also been raised by parents and society concerning the Omani educational system. Teachers as part of this system are blamed by society for their students' low academic achievement. This has led to many Omani teachers applying for administrative posts to escape from teaching. Many new undergraduate teachers search for different jobs before even beginning teaching as a result of negative reputation and stereotypes that surround teaching.

The present research is motivated by rapid complaints from teachers regarding being unsatisfied with their profession, which the researcher noticed throughout his school visits as a decision maker. It is hoped that such study would result in creating a holistic view about teachers' performance which might enhance teaching satisfaction and clarify the factors responsible for the negative attitudes teachers have. It would also highlight the factors that have direct and indirect effects on teachers' professional performance that if considered would result in a motivating teaching environment.

1.10.3 Emphasizing Quality versus Quantity in Omani Teachers

Until the academic year 2011/2012 there were 51811 teachers, males and females, in the governmental schools (Ministry of Education, 2012); of these, 89.21% of the total number are Omani teachers. It is a big change, especially

when Omani teachers in the Ministry of Education were less than 20% in the academic year 1991/1992. However, that could be taken as an indicator of the increasing involvement of Omani youth in this career during the last 20 years. The increase in numbers of teachers requires maintenance of quality in their performance. The quality of teachers' performance is based on several factors related to their academic background in addition to other factors. Therefore, I believe that the quality of teachers in Oman is an important issue deserving to be studied for the following reasons:

1- Variation of Omani teachers' degree conferred: local universities and foreign universities;
2- Difference of admission rules in universities;
3- Importance of continuity of reform in educational system; and
4- Importance of prioritization among graduates.

1.10.4 Studying Teachers Performance in the Omani Context

As far as the Omani educational system is concerned and to the best of my knowledge, no attempts have been made to systematically study the variables that play a role in the reduction of Omani teacher performance. For the above reasons and in view of my 20 years of experience in teaching and other educational fields as part of my employment with the Omani Ministry of Education, this study was developed to highlight the variables that affect the Omani teachers' performance.

1.11 Theoretical Framework

Teachers' attitudes towards teaching and teacher professional performance are two important issues tackled theoretically. Much of the literature provides that the first one to use the term attitude was the English philosopher Spencer, in his book, the First Principles. Then the concept has become very common that theorists from different fields began to develop theories about it in accordance to what they have in their own fields of research. Therefore a great deal of debate was aroused to reach a point of agreement which was considered as a deceiving matter (Rokeach, 1980).

Theoretically, Fishbein and Ajzen (1975) presented a model that explains the complex relation between attitude and behavior or performance called "the Reasoned Action Model" as in Figure 1.4.

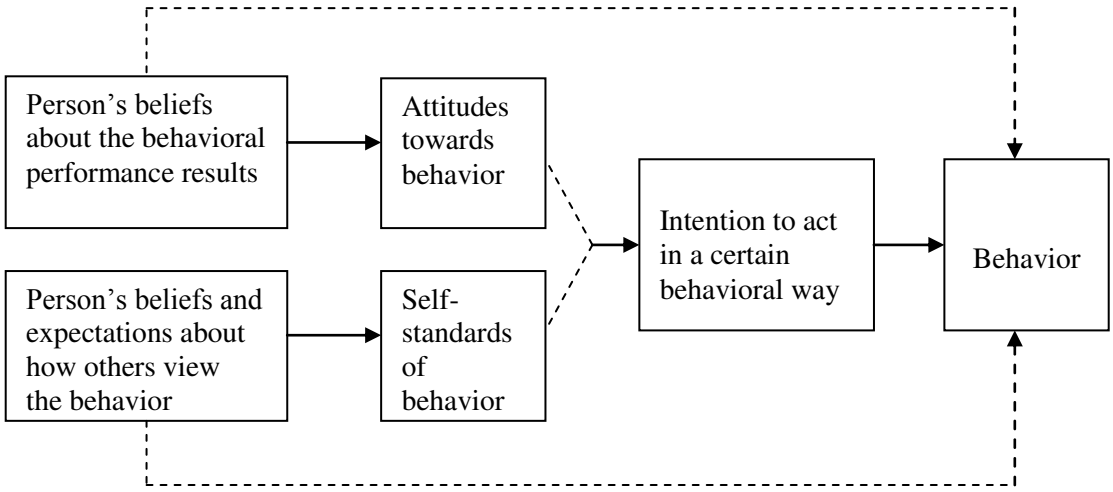

Figure 1.4. Reasoned action theory (Fishbein & Ajzen, 1975).

This model supposes that the persons' beliefs about a certain object affect their own attitude towards that object. Moreover, the attitudes affect behavioral

intention, which affects the person's actual behavior towards the object. In the teaching matter the relationship between attitudes and teaching practice were summarized by Smith in 1993 (see Figure 1.5).

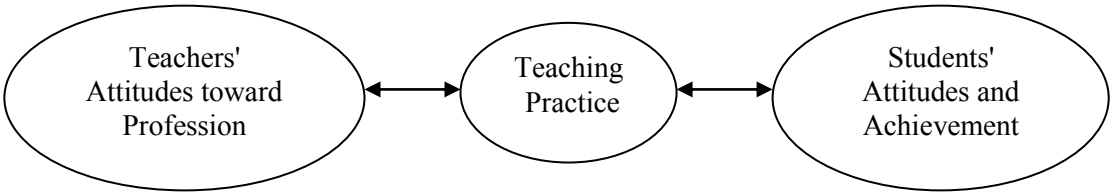

Figure 1.5. Relationship between attitudes and teaching practice (Smith, 1993).

As Smith's (1993) cycle showed, it can be obviously understood that teachers' attitudes towards the profession will affect their teaching practice. Duatepe and Oylum (2004) see that teachers' attitudes towards their profession influence their performance, which means that positive and negative attitudes towards the profession can affect performance in any profession. Therefore, teachers' attitudes towards teaching play a critical role in shaping their performance standard.

In the theory of performance, Campbell, McCloy, Oppler, and Sager (1993) presented two broad approaches to professional performance. First, dimensions of the performance domain are identified which define categories of professional performance that apply to all jobs. Second, the causal patterns of relations between the various dimensions and antecedents of professional performance explain the variability and the causal sequences of professional performance. The theory of individual differences predicted that the type of knowledge, skills, and work habits associated with task performance are different

from those associated with contextual performance. Motowidlo, Borman, and Schmit (1997) argued that the theory of individual differences should include contextual work activities in a conceptualization of performance. A more realistic view, in essence, posits that individual differences exist between teachers in their professional performance. On the other hand, it was found that self-efficacy theory is derived from social cognitive theory that determines a person's belief in their capacity to successfully perform a behavior or task (Bandura, 1996). Self-efficacy encompasses a wide range of predictors of performance levels for a specific task (Gist & Mitchell, 1992) that have been associated with professional performance (Barling & Beattie, 1983).

Motowidlo et al. (1997) argued that professional performance is behavioral, episodic, and multidimensional. Thus, rating individual performance as one aspect of performance is potentially misleading, since various individual behaviors contribute to organizational goals. Moreover, the effectiveness of performance may not be linear (Pritchard & Roth, 1991). As such, behavioral episodes that contribute to organizational goals form an important aspect of the professional performance area.

To sum up, I proposed that the teachers' professional performance is influenced by their Attitudes towards Teaching (TATT) directly and indirectly. In case of direct effect, literature showed that the teachers' attitudes towards teaching is impacting their professional performance is Anders and Mitchell (1978), Anemoyanis (1979), Adams and Martray (1980), Burden (1980), Alday (1981), Baer, Kachur, Goodall, and Brown (1982), Clifford (1982), Brown (1983), Ellis (1983), Floyd (1983), Guyton, Fox, and Sisk (1991). Helvie (1984), Milner (1984),

Hurmoz (1987), Adeep (1988, 1990), Reid and Caudwell (1997), Smithers and Robinson (2001, 2003), Andrews and Hatch (2002), McNergney and Satterstrom (2004), See (2004), Rice (2005), and Penuel et al. (2007).

On the other hand, I proposed an indirect effect because it is believed that the positive or negative attitudes towards teaching are not enough to make a success or a failure in the teaching performance without the self-professional development by teachers themselves. Garet, Porter, Desimone, Birman, and Yoon (2001) indicated three core features of professional development activities that have significant, positive effects on teachers' self-reported increases in knowledge and skills and changes in classroom practice: (a) focus on content knowledge; (b) opportunities for active learning; and (c) coherence with other learning activities. Hence, teachers who like teaching must improve their skills and knowledge in their specialization. Therefore, it can be concluded that this hypothesis belongs to the motivation theory that posits the need for achievement and intelligence as the two most important factors determining human performance (McClelland, 1975). Motivation to work forms the basis of the theory of human needs (Johnston, 1979). Campbell and Pritchard (1976) explained that based on the motivation theory, the amplitude and persistence of an individual's work behavior on a given task, while holding constant the effects of aptitude, skill, job knowledge and situational constraints operating in the immediate work environment. In fact, to reach the stage of building a positive attitude towards the profession, teachers needs a suitable scientific, cultural and educational environment during their study (Ghunam, 1972).

Katz (1972) stated four developmental stages for teachers: survival stage, consolidation stage, renewal stage, and maturity stage. The following Figure 1.6 describes each stage and the training needs during the approximated period.

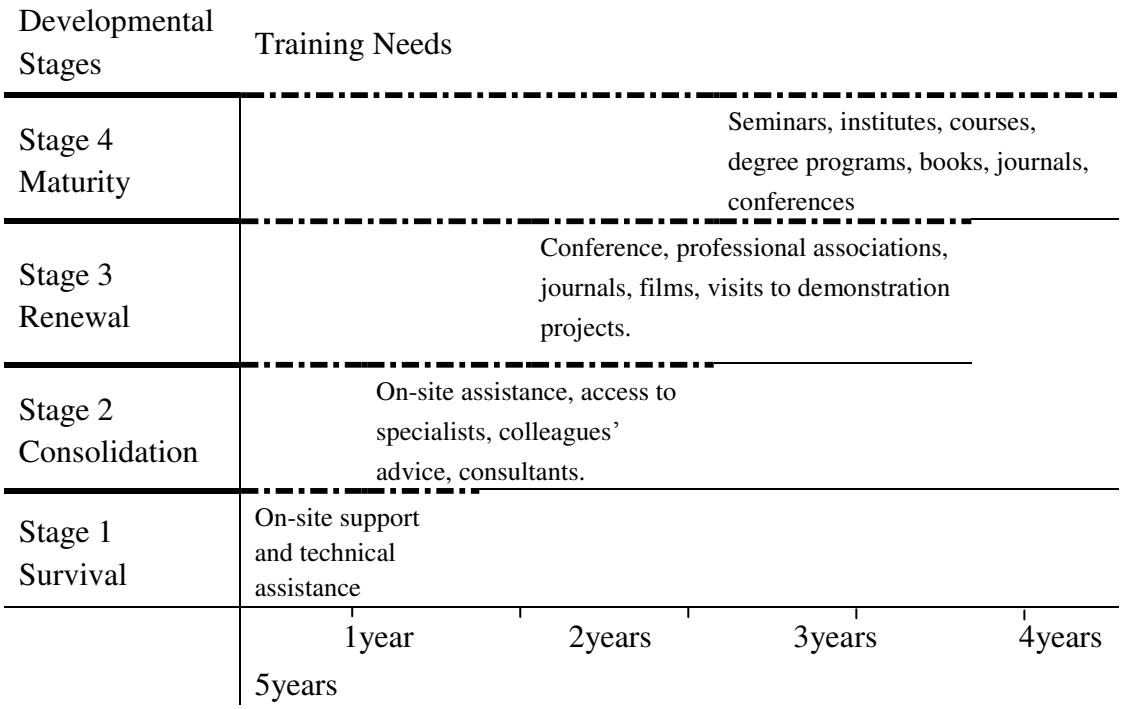

Figure 1.6. Stages of development and training needs of school teachers (Katz, 1972).

Jamil et al. (2011) conducted a study to examine the effects of in-service training on teachers' performance in secondary schools. They found positive effects of in-service training on the teachers' performance. The effect of training on teacher professional performance was also studied by Downs, Downs, and Rau (2008).

The relationship between teachers' college grade point average GPA and teachers' professional performance appeared in some studies (e.g., Blue et al.,

2002; D'Agostino & Powers, 2009; Darling-Hammond, 2000; Ferguson & Womack, 1993; Hall & West, 2011).

Performance theory compares the difference between the desired behaviors with the actual behavior a person exhibits on the profession that is determined by a person's contribution to achieving organizational goals (Quinn, Faerman, Thompson, and McGrath, 1996). Motivation is an important factor in determining performance (Campbell, Gasser, and Oswald, 1996). Al-Hassawi (1995) also emphasizes the importance of adopting a continuous training scheme and extending the training period at the university level up to at least five years. His study showed that teacher training in the Arab world is highly deficient. Al-Toobi (2004) believes that the development of skills and efficiency of the teacher is the prime criteria to be considered when designing the level of in-service training provided to teachers for emergence of good performance in their profession. This has led to supposing a direct effect happening between in-service training and teachers' professional performance.

Dokko, Wilk, and Rothbart (2009) found that prior occupational experience has a positive effect on performance via knowledge and skill but a negative direct effect that diminishes the overall relationship, and they provide preliminary evidence that the negative effect was driven by behavioral and cognitive rigidities. Other related studies were published in the same field (e.g., Brief & Weiss, 2002; Marchant, 1992; Wai, 1996). Teachers' experience also is related with their professional development, as shown by several recent studies. (e.g., Farrell & Lim, 2005; Tsui, 2005; Gurvitch & Metzler, 2009; Levin & Rock, 2003; Malakolunthu, Rengasamy, & Idris, 2010; Martin, Yin, & Mayall, 2006;

Rodriguez & McKay, 2010; Walls, Nardi, Minden, & Hoffman, 2002; Waters, 2006).

In the matter of professional development and teaching performance, a number of studies suggest that the intensity and duration of professional development is related to the degree of teacher outcomes change and the teaching experience (e.g., Harris & Sass, 2007; Rice, 2010; Shields, Marsh, & Adelman, 1998; Weiss, Montgomery, Ridgway, & Bond, 1998). Porter et al. (2000) reported six key features of high-quality professional development led to increases in teachers' self-reported knowledge and skills and changes in teaching practice, as performance outcomes: three structural features; reform type, duration, and collective participation, and three core features; active learning, coherence, and content focus.

According to the related theories and studies discussed previously, this researcher proposed the relationships between factors as shown in the conceptual framework.

1.12 Conceptual Framework

The conceptual framework guiding this research is based on the theory of performance (Campbell et al., 1993), the theory of reasoned action (Fishbein & Ajzen, 1975), and the history of the theoretical work; related studies. To be modeled, Figure 1.7 depicts studies supporting construction of the proposed model of the current research.

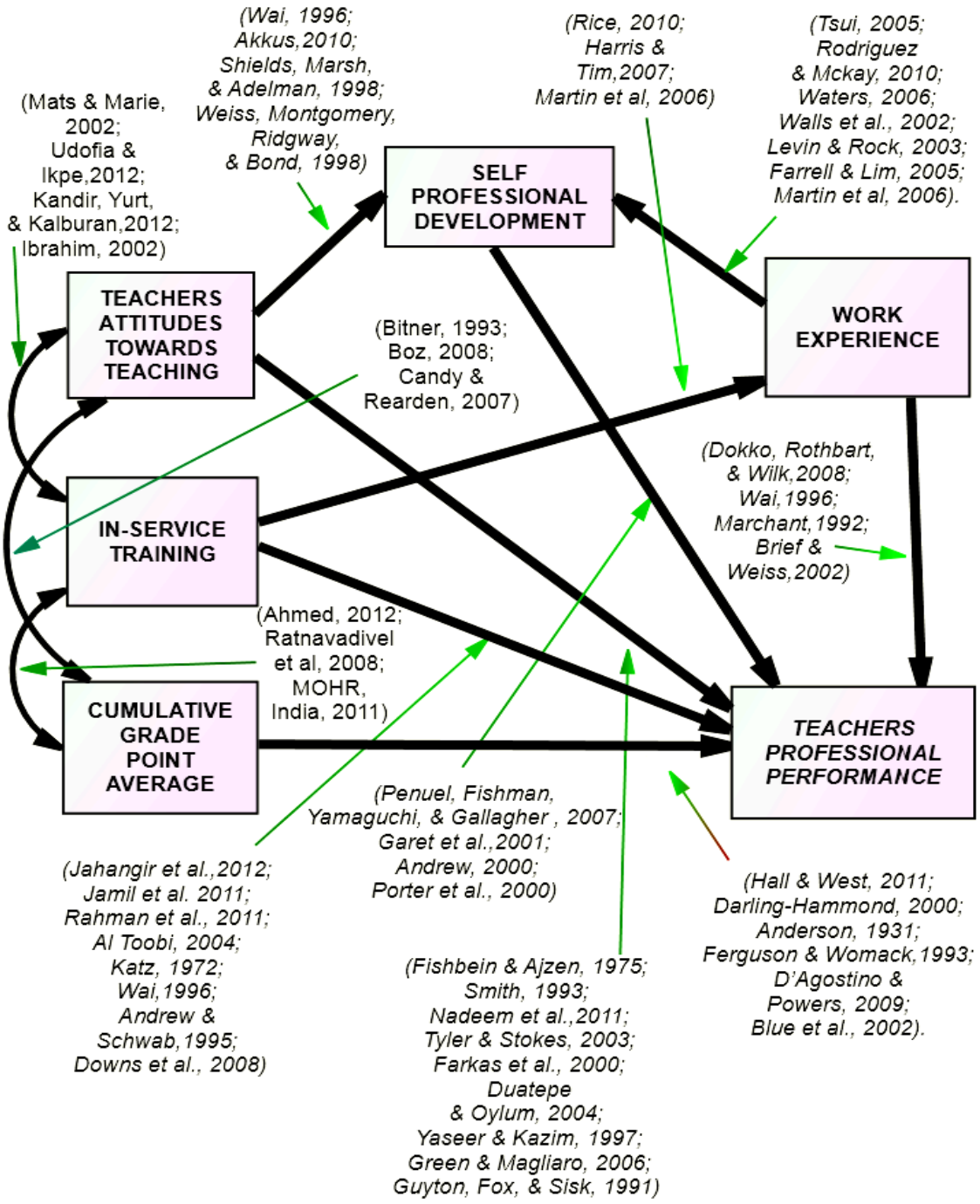

Figure 1.7. Studies supporting the proposed path model of factors affecting Omani teachers' professional performance.

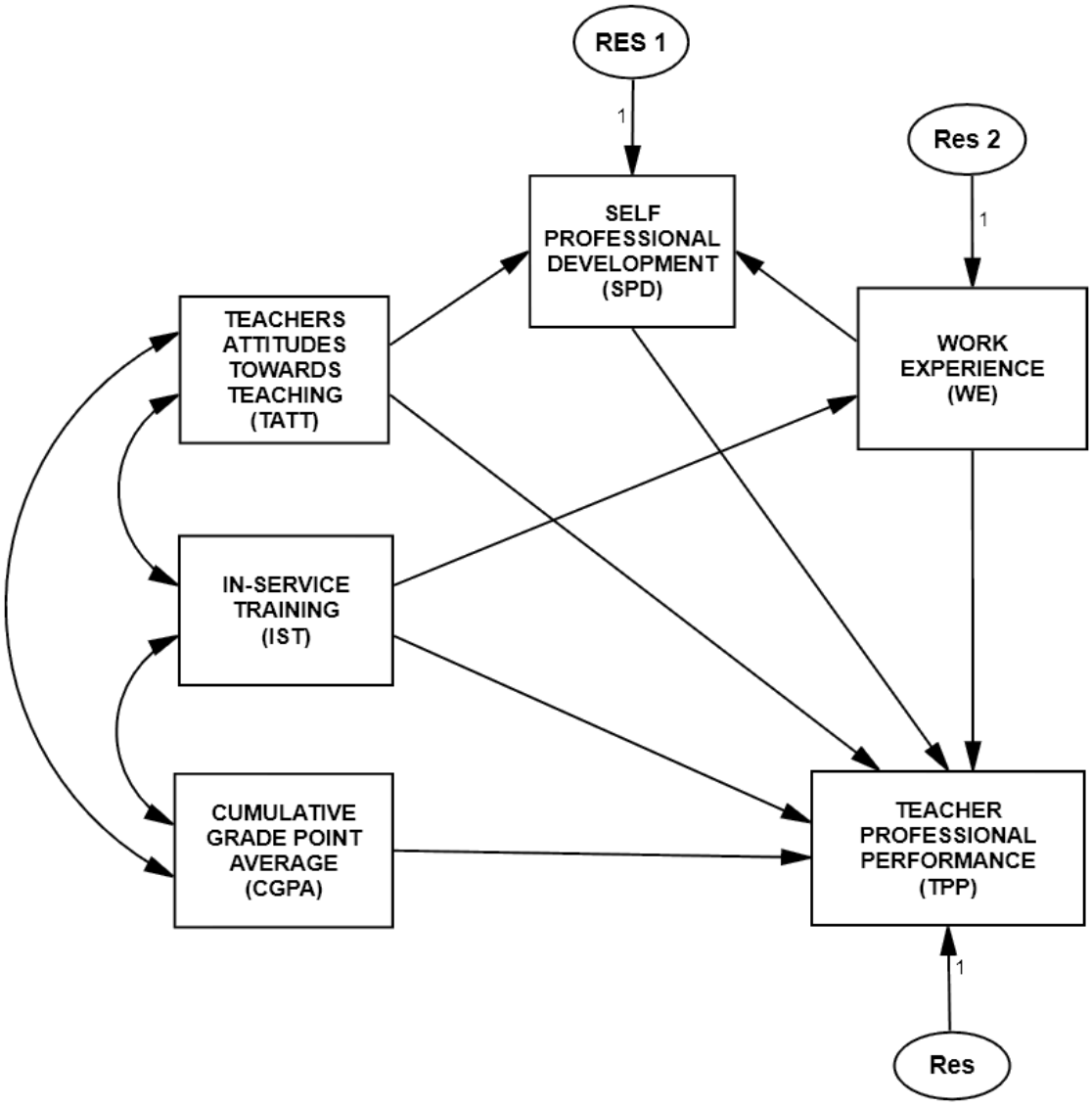

Figure 1.8. Proposed path model of factors affecting Omani teachers' professional performance.

Construct of the proposed model explains the hypothesized relationships between the study independent's variables and their effect on teachers' professional performance (TPP) as a dependent variable. Figure 1.8 depicts a proposed model for the relationships among the study variables.

The model proposes that the Teachers' Attitudes Towards Teaching (TATT), Work Experience (WE), In-service Training (IST), Cumulative Grade Point Average (CGPA) and Teachers' Self-professional Development (SPD) have a direct effect on the Teacher Professional Performance (TPP). More direct effects were supposed by the model, are the effect of In-service Training (IST) on the Work Experience (WE), the Work Experience (WE) on the Self-professional Development (SPD), and the Teachers' Attitudes towards Teaching (TATT) on the Self-professional Development (SPD).

Also, the model proposed indirect effects of teachers' attitude towards teaching (TATT) on teachers' professional performance (TPP) through the self-professional development (SPD) and an indirect effect of in-service training (IST) on teachers' professional performance (TPP) through the work experience (WE). The relationship between in-service training (IST) and self-professional development (SPD) is supposed to be via the Work Experience (WE), while the relationship between the Work Experience (WE) and teachers' professional performance (TPP) is proposed to be through the self-professional development (SPD). Table 1.5 summarizes the hypothesized direct and indirect effects of variables on teacher professional performance. There are 8 models derived from this model as models for the sub-groups of the study sample.

Table 1.5

Hypothesized Direct and Indirect Effects of Variables on the Teacher Performance

	Teachers Professional Performance (TPP) is Predicted by Variable,	
	Directly	Indirectly
Teachers Attitude Towards Teaching (TATT)	√	√ the **Mediator** variable is SPD
In Service Training (IST)	√	√ the **Mediator** variable is WE
Work Experience (WE)	√	√ the **Mediator** variable is SPD
Self- Professional Development (SPD)	√	×
Cumulative Grade Point Average (CGPA)	√	×

Table 1.6 identifies the proposed model.

Table 1.6

A Proposed Model Description

Description	Quantity	Description
Total Variables	9	TATT, IST, WE, SPD, CGPA, TPP, RES, RES1, and RES2
Observed Variables	6	TATT, IST, WE, SPD, CGPA, and TPP
Unobserved Variables	3	RES, RES1, and RES2
Exogenous Variables	6	TATT, IST, CGPA, RES, RES1, and RES2
Endogenous Variables	3	TPP, SPD, and WE
Direct Effects	8	5 variables have direct effects on TPP 2 variables have direct effects on SPD 1 variable has a direct effect on WE
Indirect Effects	4	3 variables have indirect effects on TPP 1 variable has an indirect effect on SPD
Total Effects	9	
Total Data Points	21	6(6+1)/2
Parameters	17	

1.13 Definition of Terms

1.13.1Cumulative Grade Point Average (CGPA)

Numerical value, which is given to the student by calculating his or her total marks in subjects divided by the number of study hours, and recorded as points. CGPAs are available in the Omani Ministry of Education database.

1.13.2 In-Service Training (IST)

In-service training is education for teachers to help them develop their teaching skills and it involves courses or workshops which teachers attend during their service in the Omani Ministry of Education, such as workshops on teaching strategies, curriculum design, assessment methods, etc.

1.13.3 Self-Professional Development (SPD)

Self-professional development is an increase in knowledge, skill, and accomplishment achieved through personally motivated individual study. In other words, it is an individual effort by the teachers themselves to upgrade their professional standard.

1.13.4 Teachers Attitudes towards Teaching (TATT)

Attitudes are a psychological concept taking positive, negative or neutral views towards an attitude object. In this study, attitudes are the degree of belief and feeling that could be adopted by teachers towards teaching as a career.

1.13.5 Teachers' Professional Performance (TPP)

Teacher's Professional Performance is the level of teacher's performance when they do their teaching duties.

1.13.6 Working Experience (WE)

Working experience is the number of teaching years commencing with the date of appointment to employment in the Ministry of Education.

1.14 Summary

Chapter one provided an introduction to the Omani educational system, the research variables, and rationale for the study. Also, statement of the problem, purpose of the research, research questions, research and statistics hypotheses, significance of the research, and operational definitions of the research variables were outlined followed by the theoretical and conceptual framework.

CHAPTER TWO

REVIEW OF LITERATURE

2.1 Introduction

The increasing body of literature on what motivate people to choose teaching as a profession found that they are directed and motivated by their intrinsic factors which are inherent in the job, such as love of children, desire to impart knowledge, and so forth. On the other hand, those unwilling to become teachers are driven by extrinsic factors such as salary, conditions, career potential and so forth. Therefore, extrinsic factors are the ones to be addressed in motivating people to join teaching, especially among mathematics and science graduates, to whom these factors are relatively more important.

Teachers' attitude towards teaching is the primary determinant for range of enduring. Psychological and physical pressure and therefore psychological combustion may lead to weak achievement. Vice versa, there is agreement that the passport to teaching success is positive attitude towards teaching, because attitudes are the norm which builds most of educational activities. Therefore, attitudes towards teaching as a career is the forecaster for the social atmosphere, which would be confirmed by the teacher in the classroom.

In addition, linking between the teachers and their attitudes towards teaching depends on the academic preparing and the educational attitudes reflection of the teacher's point of view or beliefs towards teaching, teacher-student relationship, control and punishment, teaching skills, teaching aids, and

the curriculum. Therefore this chapter is aimed at reviewing the related literature including recent studies.

2.2 Attitudes

The concept of attitude, as discussed in the theoretical framework in chapter one, is one of the most remarkable and binding concepts in contemporary social psychology. No single term has ever been used in the experimental studies as this one. Allport (1935) thinks that the factors of this common usage are:

1. This concept does not belong to any of those psychological schools who are known of continuous conflict, namely, the Behavioral Instincts school and the Gestalt school. Therefore, it was natural that most psychologists who belong to the conflicting schools supported this concept.

2. This concept helps those who adopt it to escape the problems of environment and heritage, which witnessed hot debates during the third and fourth decades of the twentieth century.

3. This concept provides some flexibility to be used for individuals as well as a groups of people. Actually, it was used at both of these levels, which made a point of agreement between the psychologists and sociologists.

4. The exigent desire of psychologists, especially in the USA, to be able to use scales in their studies. Many researchers think that measuring is the main side in describing a research as scientific.

2.3 Attitude Change

Earlier in this research, in our discussion about the concept of attitude under the cognitive component, we have come across the definition provided by Rokeach, which "attitude is a constant order of beliefs relevant to a subject or situation makes the individual tends to respond in a favored manner". However, some psychologists disagreed with Rokeach. They think that what he mentioned in his definition is not static, it is rather relative, which means it is liable to be changed according to the changes that occur in the individual's knowledge and cultural atmosphere. It indicates that the individual's form of response could be changed if his/her information about the concerned subject has been changed. For instance, a student's (teacher's) response at the end of his study could be known from the information about his life in college. In other words, the future behavior of such student (teacher) could be changed and predicted by modifying his experiences and information during his study at college. This will, in turn, share in changing the affective feelings like loving his/her profession or hating it. Rajecki (1990) showed a group of models to explain the consistency process through the three components of attitude and deal with them collectively, as mentioned before. The following Figure 2.1 shows a summary of Rajecki's views which explain how a

change in the affective component can lead to a change in cognitive component and vice versa.

If a person gains new knowledge or changes old ones, that will lead to a change in affect.	(C) → (A) Cognitive Affective
If person's knowledge and affect towards something are positive, his behavior towards it will be positive too.	(C) + (A) → (B) Cognitive Affective Behavioral
An occurrence of new feelings or change of old feeling may lead to a change in knowledge	(A) → (C) Affective Cognitive
An occurrence of a new behavior or a change in an old one may lead to a change in affect and knowledge	(B) → (A) + (C) Behavioral Affective Cognitive

Figure 2.1. Rajecki's views about consistency of attitude components (Rajecki, 1990).

The change occurs to keep consistency between the attitude components. It means that the change in one of the components will cause interruption of this consistency and requires to be rearranged. Such an operation may take one of the following forms:

1. An individual may refuse the information that lead to the consistency interruption to rebuild the old attitude. For example a teacher may quit the profession to another one where he or she feels more stable.

2. The inner structure of attitude may fall apart or be contrasted if an individual faces strong or contradicted information about the attitude's subject. That

means a teacher experiences, before graduation, some information about disadvantages of the teaching profession, but still appreciates it has advantages.

3. The cognitive change in the attitude structure can lead, in turn, to an affective change with or against the attitude and similar to the type of knowledge that a teacher gains during his or her study at the college.

4. The affective change in the attitude structure can lead to a cognitive change. This can happen through a change of beliefs which may lead, for example, to a change in ideas about the teaching profession.

To explain some aspects and methods of changing attitudes we can review what is mentioned in different literature about them.

2.3.1 Aspects of Attitude Change

The change of attitude is represented by either a change in its intensity (increasing or decreasing) or a change in its nature (positively or negatively). Khalifah and Mahmoud (1991) summarize the aspects of attitudes mentioned in different literature in three basic approaches:

2.3.1.1 Conversation Attraction Approach

It is done either directly face to face or indirectly as it is used in different mass media. The aim in all cases is to attract the person to a certain subject and change his/her attitudes. It requires choosing the correct methods that ensure

approaching the person's qualities and principles. To ensure the perfection of this method, its supporters make use of the principles presented by learning theories developed by some psychologists such as Pavlov, Thorndike, and Skinner. They study the functional relations between the stimulants (conversation components) and responses (change of attitudes). They believe that behavior is basically built on cognition (Khalifah & Mahmoud, 1991).

Thus, it is possible to control behavior by controlling the information received by the person. It could be done by applying the conversation methods presented to people in a form of reacting stimulants and other variables participate in such reaction. Then all these parts share in the results of the conversation process (McGuire, 1985). Figure 2.2 shows the variables discussed by the conversation attraction approach.

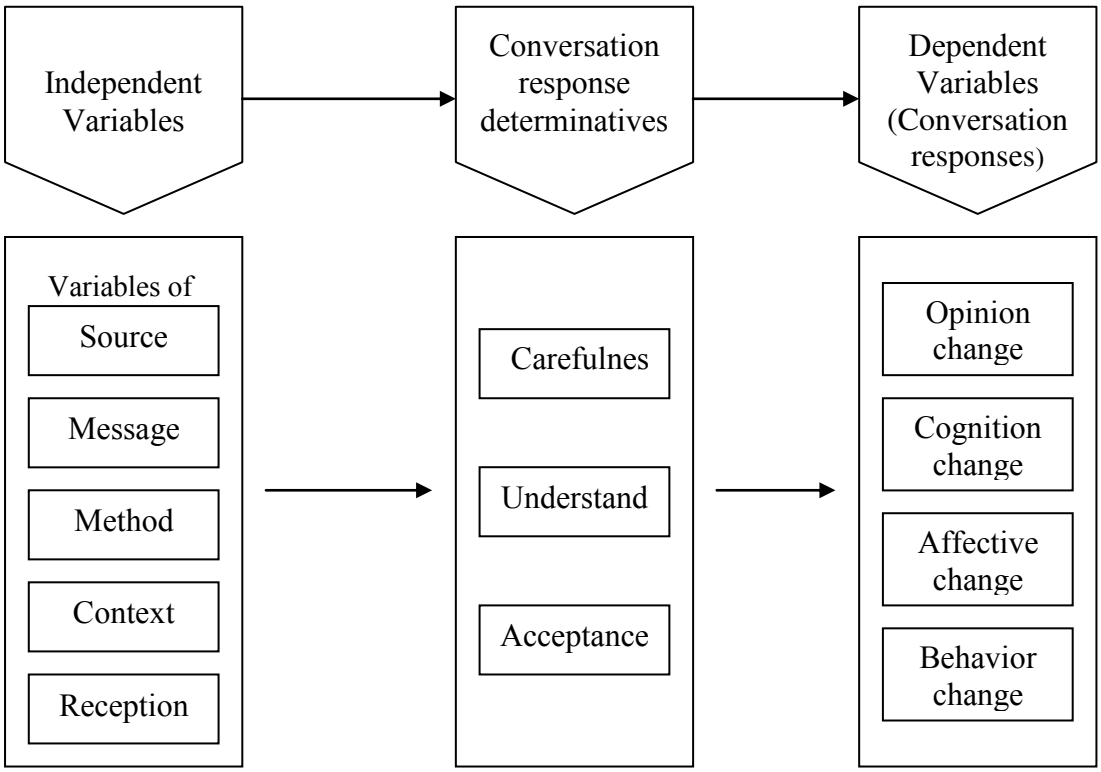

Figure 2.2. Conversation attraction variables (Khalifah & Mahmoud, 1991).

The variables are divided into three categories: (1) the independent variables or stimulants. They include the source of conversation, its content, method, context and reception; (2) conversation response determinatives or the cognitive processes that follow receiving the conversation and precede the change of attitude, or pave the way for such change; (3) the dependent variables or the conversation response which accepts what the conversation calls for. This response is a result of a reaction between two categories; category 1 and category 2 (Janis & Hovland, 1959; McGuire, 1969).

The processes of attitude change under the conversation trend have witnessed some stages of systemization and developments starting from Hovland

and his colleagues who were the first in dealing with this approach in 1953. McGuire who also developed this approach in the late 1960s systemized them in 1985 by setting twelve different processes. He built his process in a causative series where each one of them depends on the other; a failure of any one of them decreases the attitude change probabilities (McGuire, 1985).

2.3.1.2 Opposing Behavior Approach

This approach tries to know how people accept a behavior that contracts their own attitude in order to maintain the constancy between their attitudes and behavior. When people justify their own behavior, they somehow decrease the intensity of the contradiction between that behavior and what they think is correct. Although those justifications are disapproved, they are capable of changing his attitude to match the behavior. And because they are convinced of those justifications, they are motivated to decrease the inconsistency between their behavior and attitude (Schlnker, 1982).

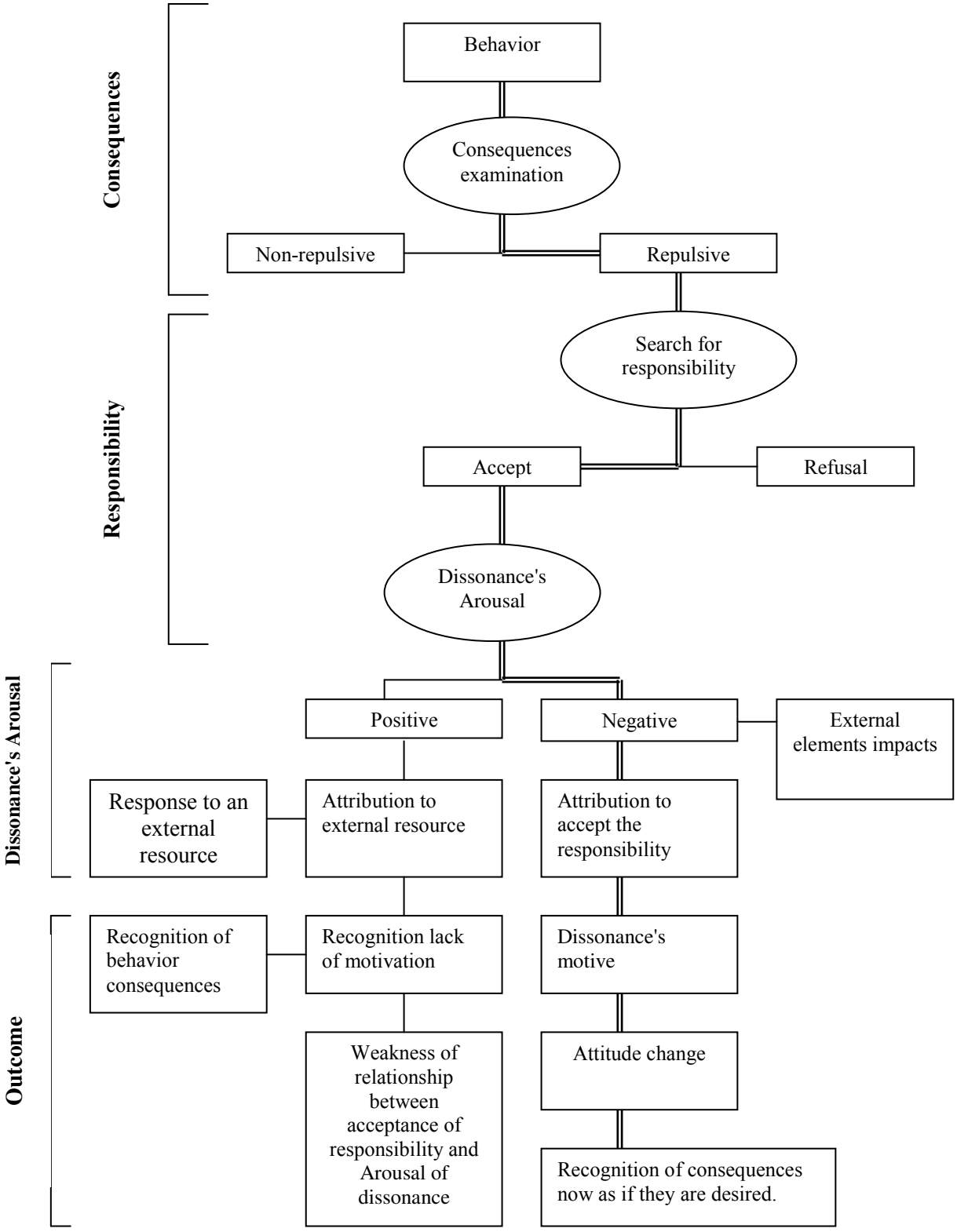

Figure 2.3. Attitude change process by dissonance arousal (Cooper & Fazio, 1984).

Figure 2.3 shows the process of attitude change as a result of dissonance arousal between behavior and attitude. The results of change are examined; either they are accepted or rejected. Various theoretical trends belong to this approach. They carry different names such as Balance which is treated by Heider (1944), in addition to Congruity and Symmetry. All these trends seek out the functional relations between attitude change factors and the response under the existence of the assumed arousal to decrease the cognitive inconstancy (Ableson, 1968; Esier, 1980).

Some theorists think that the first and second approaches of attitude change are opposite to each other. They say that the first one comes basically from information and knowledge to change attitude and modify behavior. While the source of the second approach is the behavior that opposes the attitude, in addition to how much that person accepts or justifies this behavior. Therefore, we find that some theorists sought to reconcile between behavior and attitude. They tried to create the so called Reconciliation Approach.

2.3.1.3 Reconciliation Approach

A scientific explanation of the attitude change process was presented by Insko and Cialidine in 1969. Their explanation makes use of both theories made by McGuire (1985) that support the first approach and Heider's theory (1944) that supports the second one. They stated three factors that they think are responsible for attitude change: (1) the utterance support that the source of change offer. This is similar to what McGuire called message information processing, (2) Positive

relationship or rapport between source and recipient which helps in accepting the message and understanding it; and (3) Behavioral commitment, which ensures the continuation of the acceptance, indicated in the second factor.

Fishbein and Ajzen presented in 1975 one of the most important models of reconciliation approach called the Reasoned Action model. It is considered as the most comprehensive trend of all theories of attitude change because it is provides explanations for the human behavior by studying different situations and contexts that relate to the concerned behavior. It also focuses on the predicted intention issue that determines the behavior (Fishbein & Ajzen, 1975) (see Figure 1.4 in chapter 1).

Although this model is widely applied in social psychology, sociology and other fields, there are some shortcomings that limit its paraphrasing capability. One of the points against this model is that it lacks inner consistency between its components. For example the behavior intention is not always a basic part in the attitude's effect which could be direct or indirect. In other words, there are variables other than behavior intention, such as voluntary control and previous behavior; they can directly determine the behavior (Chaiken & Stangor, 1987).

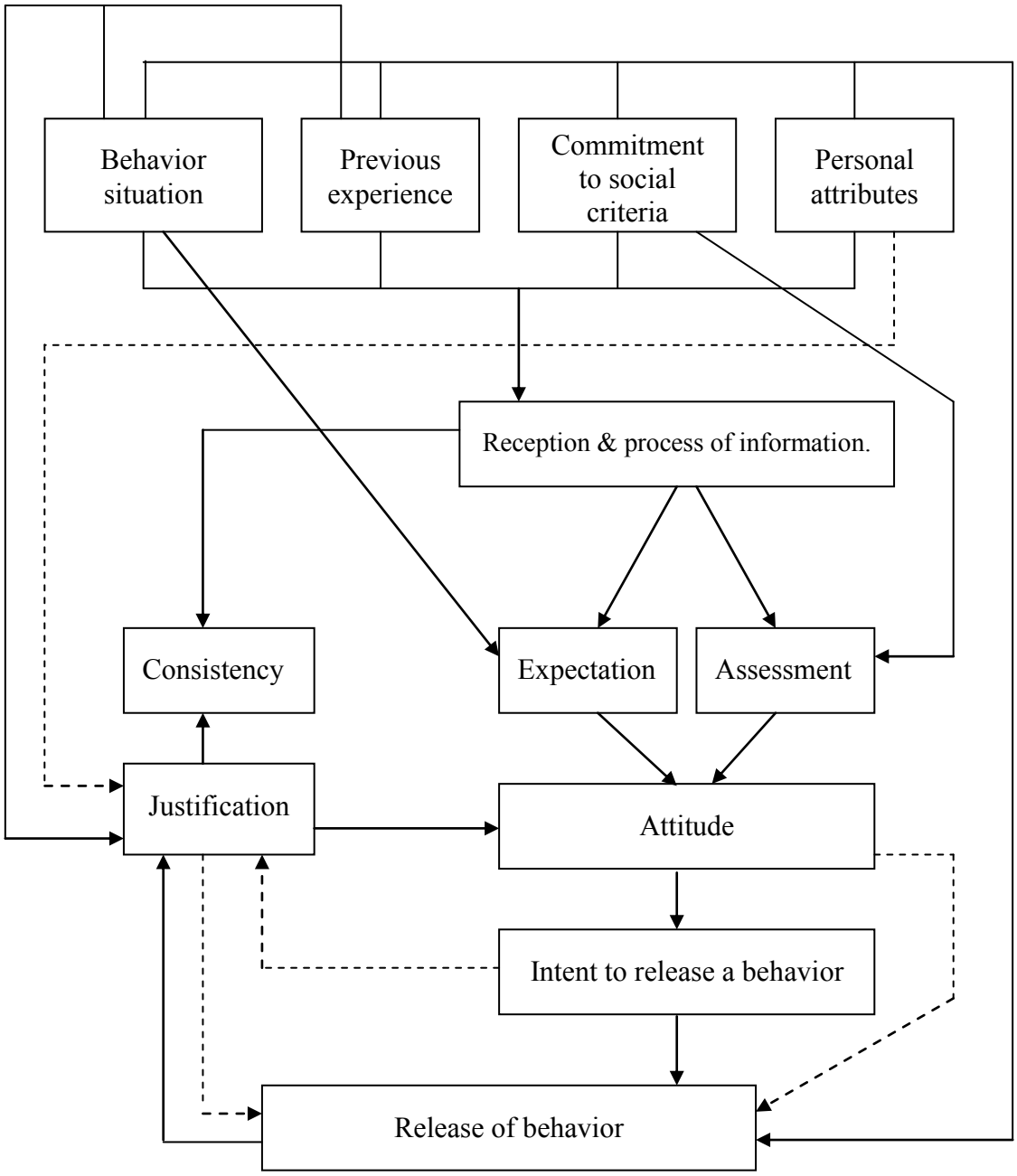

Figure 2.4. Formation of attitude and its contribution to release of behavior. (Kahalifa & Mahmoud, 1991).

This model is also accused of focusing only on the voluntary behavior and it does not consider facts about behavior. In addition, it overlooks the partial occurrence of behavior under voluntary control and it is always directed to

achieve a certain goal (Bagozzi, 1986). Therefore, to treat those shortcomings of the Reasoned Action model, a group of models appeared. One of them is Planned Behavior Theory by Ajzen in 1985 (Khalifah & Mahmoud, 1991), and Purposeful Behavior Theory by Bagozzi (1986). The second theory adopts the motivational component represented in avoidance responses produced directly from evolutional, emotional and moral responses. There is also a group of psychological factors that work as variables of one's personality, in addition to the social, moral and other standards.

Figure 2.4 is from "Psychology of Attitudes" a book written by Khalifah and Mahmoud (1991). It explains the formation of attitude and its relative participation in behaving. Teachers' attitudes have been a subject of study and interest for many years. Some studies are purely descriptive, providing information about attitudes that teachers hold. Other studies focus on describing the effects of teachers' attitudes on their teaching, their students or their commitment on their profession.

Studies on attitudes investigate different fields in teachers' attitudes. Some studies interest about groups of teachers on the bases of subject area taught, such as science, mathematics, Islamic or history; other studies looked at different teacher characteristics, such as sex and age. Many descriptive studies investigate factors that influence teachers' attitudes and the effect of those attitudes on teachers' behaviors and their professional performance. Powell and Beard (1986) stated that the literature on attitudes cover seven aspects:

A) Description of teachers' attitudes;

B) Variation in attitudes between groups of teachers;

C) Teachers' attitudes towards students;

D) Teachers' attitudes towards their own teaching;

E) Influences on teachers' attitudes;

F) Effects of teachers' attitudes; and

G) Reviews of research on teachers' attitudes.

2.4 Attitudes Measurement

No doubt, many field studies were carried out by different theories about attitudes, components and aspects of change. They used psychometric tools and methodical ways to measure attitudes. It is not possible to predict an attitude as a result of a behavior or a variant for a behavior unless we use trusted measures, especially prepared for this purpose.

Attitude measures appeared when the concept of attitude showed up in the late 19th century. They were not the same; they differed according to the used measurement methods. Such as:

- Self-estimation measures;
- Actual behavior observation measures;
- Physiological response measures; and
- Projective Techniques.

Self-estimation measures are the most common tools in measuring attitudes. They take different forms, in all of them a recipient is asked to answer some questions or comment on scenarios related to the studied attitudes. The recipients express their own beliefs and attitudes about this subject through these questions and comments. From such responses the researcher determines the degree of agreement, disagreement or neutrality towards the subject (attitude). According to Allam (2000) the most important self-estimation ways for measuring attitudes are:

1- Social Distance Scale "Bogardus";
2- Paired Comparison method "Thurstone";
3- Equal Appearing Interval method " Thurstone & Chave";
4- Summated Ratings method "Likert";
5- Scalogram Analysis "Guttman"; and
6- Semantic Differential Technique "Osgood".

In this research, the researcher is going to use the Summated Ratings Method (Likert Technique) to develop a scale for teachers' attitudes towards teaching as a career.

2.5 Summated Ratings Method (Likert Technique)

This approach is considered among the common approaches used in assessment and educational, psychological and social researches. This approach depends on the graded assessment of attitudes in which individuals are provided with a list of items and asked to state their agreement or disagreement in variant degrees that reflect the intensity of their attitude. Individuals with less intensity in their agreement or those who have different positions on the scale are expected to have a different behavior in social situations related to the subject of the attitude. However, the association of actual behavior with the attitude is still a point of controversy between psychologists. The intensity of attitude is partially determined by giving different weights to the individual's response to each item. If, for example the item was "I like my career", then it would be possible for an individual to respond on a graded scale of five points as follows:

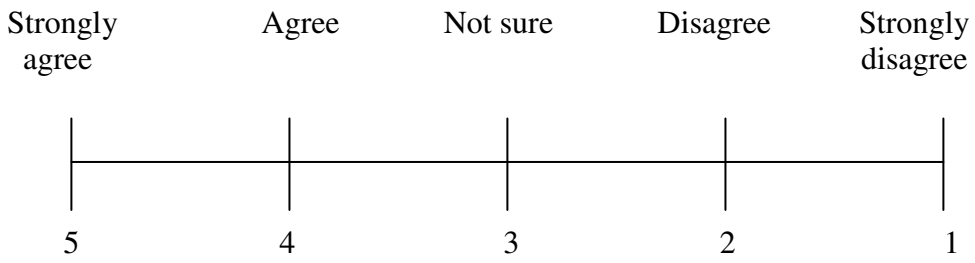

Figure 2.5. Five point Likert scale.

The response “strongly agree” is given the numeral weight (5), the response “strongly disagree” is given the numeral weight (1) and so on. The bigger the numeral weight the stronger the indication that the individual likes his/her career and vice versa. If 100 persons respond to this item we get 100 responses varying in their numeral weights between (1) and (5). All individuals who respond with “I strongly agree” they get the numeral weight (5). Those who respond with “strongly disagree” will get the numeral weight (1). It does not necessarily mean that all those who expressed their total agreement on the item have the same feelings towards their career as one item or statement is not enough to assess these feelings.

Therefore, the approach of summated ratings of a set of items to reach a more accurate evaluation and to distinguish between people with regard to their attitudes towards a certain issue depends on a graduated scale such as the one mentioned above. If the scale is composed of five points and we have 10 items, the highest mark obtained by an individual will be 50 and the lowest one will be 10. Thus, the range will be 41 for the ten items instead of 5 for each item. The more the number of items, the larger becomes the range and the variation in marks increases which leads to greater accuracy of assessment. This approach is not confined to the pattern of responses described above, but it is possible to employ any other graduated scale such as:

(1) I agree, I am not sure, I disagree

(2) I strongly agree, I agree, I am not sure but I agree to some extent, I am not sure but I disagree to some extent, I disagree, I strongly disagree.

(3) Always, most of the time, sometimes, rarely, never.

It is observed that patterns one and two include the statement "I am not sure" as it is supposed that people who choose this response have no opinion, yet such response is used in such scales. The second pattern is composed of six responses or grades so that people can decide their attitude either on the right side of the scale if they choose "I am not sure but I agree to some extent" or on the left side of it if they choose "I am not sure but I disagree to some extent" because the response "not sure" does not help in analyzing data. The use of "not sure" in scales of attitudes depends, of course, on the characteristics of the sample of responders, their level of education and the extent to which they are familiar with what is required from them (Allam, 1999).

2.5.1 Steps of Building Attitude Scales using Likert Technique

Attitude scales can be built by using the summated ratings approach (Likert Technique) through the following steps:

First: gathering a large number of items related to the topic of the attitude being assessed such as the attitude towards the teacher or towards a certain area of study, or towards certain issues such as economy openness or communications techniques and other topics. Because every item of the graduated summated scale aims at reaching a consistent and uniform variation with regard to the attitude, then most of the items should include a wide range of favorableness, taking into consideration that there are no actually neutral or extreme items in this scale.

Extreme intense items in both directions lead to less variation compared to items with less extremism and their variation is very poor. The number of items can range between 40 and 60 and they are equally divided between positive and negative items.

Second: applying items on a group of individuals similar to the targeted group on which the scale of attitude in its final version will be applied later on. This group can include a number of persons equal to ten times the number of items (Nunnally, 1978). It is preferred that the number of persons is increased if possible, and to take into consideration making conditions of implementation similar as much as possible to the conditions of implementation of the targeted group. All persons are asked to express their opinion on each item and to decide the extent of their agreement in terms of "strongly agree", "agree", "not sure", "disagree" or "strongly disagree". Therefore, the group of individuals should represent as much as possible the whole range of the attitude being assessed.

Third*:* Specifying a grade or a numeral weight of the response of the individual to each item according to the weights mentioned above, while taking into account that these weights reflect the numeral weights of negative items.

For example: if the item is "The teacher is a good model to be followed." Thus, "I strongly agree = 5, I agree = 4, I am not sure = 3, I disagree = 2, I strongly disagree = 1". But if the item is "Teaching is a source of nuisance." Thus, "I strongly agree = 1, I agree = 2, I am not sure = 3, I disagree = 4, I strongly disagree = 5. Then, marks of the individual must be summed up for all items.

Fourth: carrying out item analysis to select the items that provide better distinction between individuals on the attitude scale through providing correlations between total marks obtained and their responses to each item with holding back the items with high degree of correlation and consequently we have a scale that is internally consistent. It is preferred that the values of correlation coefficients are ordered in a descending order and an approximate equal number of positive items and negative items is selected and put together to form the first version of the attitude scale.

Fifth: finding the Cronbach alpha coefficient (α) for the items which are selected by finding the degree of variation of each one of them and the variation in total mark, or formation of a matrix of correlations between item marks and total marks and carrying out analysis of items using a computer. Such a matrix will help in the following step. If the value of this coefficient is high enough (.80 or higher), the attitude scale can include these items in its final version. The value of the reliability coefficient depends on the number of grades for each item. This step is considered as an indicator of uni-dimensionality as it is used to verify that all items measure the same thing and that is the main personal concern of Likert.

Sixth: items are randomly ordered on the attitude scale in order to be used in measuring the required attitude when applied on the targeted group and find the total marks of each individual by summing up the marks relevant to his/her responses to the item included in the questionnaire.

The core mark obtained by the person has a limited meaning in itself, and its meaning becomes clear in a better way when compared with other individuals' marks on whom the attitude's scale is implemented where positions of all individuals on the scale are identified.

2.6 Related Studies

Most of the related studies have focused on teachers' performance appraisal by investigating the impacts of some factors on their professional performance. Factors found to have impact on teachers' performance are motivation, psychological attitudes, working experience, in-service training, qualification and other psychological and social factors. Examples of the studies that tackled these factors are Aronson et al. (2007), Akkus (2010), Al-Ajmi (2006), Altoobi (2004), Andrews (2000), Andrews and Hatch (2002), Bardley (1995), Brief and Weiss (2002), Chambers and Hardy (2005), Clotfelter et al. (2007), Darling-Hammond (2003), Dalal (2005), Duatepe and Oylum (2004), Erawan (2010), Yaseer and Kazim (1997), Farkas, Johnson, and Foleno (2000), Ghazzawi (2009), Green and Magliaro (2006), Harris and Sass (2008), Jamil et al. (2011), McNergney and Satterstrom (2004), Nadeem et al. (2011), Reid and Caudwell (1997), Rice (2005), Smithers and Robinson (2001, 2003), Andrew and Schwab (1995), Rooben, Koopmans, and Groothoff (2008), Stokes and Tyler (2003), Wing (1996), Wai (1996), Lumsden (1998), Marchant (1992), Leigh and Ryan (2003), Al-Rashid (1421 H), Hardy, Woods, and Wall (2003), and See (2004).

Nadeem et al. (2011), using a group of 1020 students and 204 teachers of high schools/higher secondary schools in Pakistan, found that the professional attitude of teachers, mental health, teacher morale, responsibilities at home, distance of residing area, stress, political interference, posting in the far flung areas, discrimination, lack of co-operation, working relations with staff and head teacher, working environment, are the factors which affect the female teachers'

performance negatively. Akkus (2010), in a study on teacher burnout and attitudes towards the teaching profession, discovered a significant relationship between teachers' attitudes towards the teaching profession and burnout levels of the teachers.

In 2004, Duatepe and Oylum published their study about the attitudes towards teaching profession of in-service and pre-service primary school teachers. This study investigated attitudes toward teaching, the relationship between the attitudes and some related variables such as the gender, the status and the age of primary schools teachers. It was conducted on 277 teachers in Turkish schools. Statistics revealed that the mean score of the subjects is 38.6 out of 50, which indicates a highly positive attitude. T-test between mean scores of male and female resulted in higher significance with female group than with male. It also revealed that the pre-service teachers obtained significantly higher score than in-service teachers.

Stokes and Tyler (2003) studied senior secondary students' attitudes to teaching as a career. Researchers conducted their study on 80 students as a sample of four focus groups. The first group consisted of 18 girls from the state senior school, years 9–12, the second group consisted of 17 students from the state secondary college, years 7–12, the third group was represented by 22 co-educational students from a Catholic regional college, years 7–12, and the last group included 23 co-educational students from the state secondary college, years 7–12. The main purpose of this study was to ascertain the students' attitude to teaching as a career. The results revealed that 18 students out of the 80 would consider teaching as a possible career; for most of them, teaching was something

they might consider after doing something else, later in their working life. Eleven students were interested in secondary teaching, five in primary teaching and two in early childhood teaching. For some of the students it was a realistic option. In addition, teaching was considered a career that could be pursued after four years of study as opposed to doing a PhD and 10 years of study.

Farkas et al. (2000) reported an online study carried out in the United States of America to ascertain what teachers think of their profession, and to compare their views with those of the administrators who hired them and college graduates who chose different careers. This study was based on three telephone surveys. The first is a survey of 664 public school, 250 private school, and K-12 teachers who have taught for five years or less. The second survey was conducted on 511 public school superintendents and principals. The third survey was of 802 college graduates under the age of 30. Prior to these surveys, six focus groups were conducted in sites across the country, as well as 25 interviews with experts and practitioners from the education field. The research aimed at knowing why new teachers enter the profession and what they think of it now. It also examined the perceptions of young college graduates in other professions and captures the observations of school superintendents and principals. Results indicated that beginning teachers were motivated, committed, and doing what they wanted to do. Low salaries kept some people out of teaching, though incentives other than salaries actually attracted people to the profession. Teachers wanted smaller classes and more administrative and parental support. Almost one in five young graduates in other fields expressed real interest in teaching; low salaries were not keeping them away but rather the worry that they could not make a difference.

Teachers believed that good teaching comes from what happens daily in the classroom, not from the pages of a book.

To find out why postgraduate students had chosen teaching, Reid and Caudwell conducted a study in 1997 in which 28 volunteers through their course were interviewed. This process was used as the basis for a questionnaire administered to 453 students in five universities in 1996. The questionnaire was based on offering teachers twenty-one reasons for choosing teaching as a job. It was found that the vast majority of PGCE students had positive and professionally sound rather than negative and questionable reasons for willing to teach. The two common reasons, seen as important or very important by 96% of students and as very important by more than three out of five, were enjoying working with children and feeling that teaching would bring high job satisfaction. In contrast, reasons in relation to holidays, working hours, salaries, security, wanting a change of career, having few other opportunities or nothing better to do were viewed as very important/important by less than 50% and as very important by 15% or less. The remaining reasons between these extremes fall into three categories. The first has to do with students willing to sustain, share and use their knowledge; the second, with aspects of teaching as a career -- that it would be good, challenging, bring responsibility and have an enjoyable atmosphere. The third category contains the profound wish to improve children's life chances and being inspired by one's own teachers. All the previous three categories were chosen as very important or important by between two-thirds and nine out of ten students and as very important by 20-45% of the whole sample.

Green and Magliaro (2006) conducted a study on pre-service teachers' images of teaching. This research investigated the creative representation and written reflections of 74 pre-service teachers in two teacher education courses from two large public research universities. Using qualitative methodology, the research examined images of teaching in conjunction with written reflections as a measure of the developmental level of learning to teach. As the representations were analyzed, the very personal nature in which these representations were constructed became apparent, along with the importance of the students' own past personal experience. Moreover, sophistication of reflective comments also differed across groups.

In Saudi Arabia, Al-Rashid (1421 Higree) investigated the attitudes of teachers college students towards teaching and how they are affected by some variables such as student's major, GPA in both secondary school and college, level of students (first year to fourth year) and their college of choice. Al-Rashid developed 42 items to measure the teachers' attitudes towards teaching in Riyadh schools. The results showed that the students, in general, have positive attitudes towards teaching and the significance was higher with the fourth year students than the first year students and the significant differences in attitudes due to the major in the college were found but not due to both major in the secondary school and GPA in college. It also showed that no significant differences in attitudes were found concerning professional hardships due to college, but they were found concerning three of the instrument dimensions and the instrument as a whole. Study results also revealed there were no significant differences in students' attitudes due to GPA in secondary school concerning three of the instrument

dimensions and the instrument as a whole. However, there were significant differences in students' attitudes concerning professional hardships between those of good and excellent grades.

In 2005, Rice conducted a study to explore aspects of teaching which might contribute to teachers' negative perceptions of their job. The study design consisted of set of interviews with 8 teachers to give a broader range of perspectives on the issue. See (2004) presented an article on determinants of teaching as a career at the British Educational Research Association Annual conference. The paper looked at the long and short term determinants of selecting teaching as a career, via a questionnaire based on evidence collected through preliminary focus groups and e-mail interviews. A total of 1845 students and trainees from four tertiary institutions in south-west England and Wales were approached for data collection.

Smithers and Robinson (2001) studied the attrition of the teaching workforce – how many teachers are leaving, where, and why they left. The report was based on a survey of the resignations in summer 2001 from 335 teachers, and in-depth interviews of a subset of 102 leavers. The same authors in 2003 investigated the factors affecting teachers' decisions to leave the profession. The study sample consisted of 1349 primary schools, 30 middle schools and 316 secondary schools. A questionnaire was administered to 1066 teachers who had joined teaching during 2002, and interviews of a subset of 306 of these leavers. A follow-up survey of 395 teachers who had left the job during spring and summer 2002 was conducted in January 2003. Findings reported that there are five factors underpin reasons for leaving the profession. They are workload, new challenges,

the school situation, salary and personal circumstances. Of these, salary was by far the least important, and workload the most.

Henderson and Henderson (in Lumsden, 1998) showed that teachers' attitudes towards teaching as a career become weak with expert teachers rather than novices. They found that 40% of teachers had weak attitudes towards teaching and 57% of them were ready to leave the profession and 3% of them were undecided about it. According to Bradley (1995), inadequate funding of schools, lack of parent and community support, and insufficient salaries are given as examples for factors affecting teachers' attitudes towards the teaching profession. Marchant (1992) added the role of experience as another factor to the factors influencing teachers' attitudes towards their profession.

In 1997, Yaseer and Kazim used the Al-Kalili and Magabla scale to measure the attitudes towards teaching of 314 students from the College of Education in Libya. Their sample was taken from the first, second, third, and fourth academic year. They used scale items modified to suit the students instead of the teachers. The results showed non-significant differences due to sex, year of study, or practice teaching. The researchers found that only 19 of 42 items satisfied all the emotional intensity criteria, and in general the attitudes towards teaching were positive.

Andrews and Hatch (2002) examined the mathematics teachers' justifications for choosing a teaching career. Forty-five secondary teachers, from two regions of England were interviewed during 1997-99 about their professional life histories with one element of the semi-structured schedule included an

invitation to colleagues to discuss their motives or rationales for becoming teachers. The finding analysis grouped teachers' responses into five categories of response: (1) their experiences of mathematics as learners; (2) a desire to work with people; (3) a sense of inevitability; (4) a serendipitous life-event; or (5) a desire or need to change career. These categories revealed the reasons for their willingness to become teachers and they were discussed in relation to the current thinking on teachers' professional motivation. The findings corresponded with the generality of related research that relatively few people became teachers for either altruistic or extrinsic reasons, whereas the majority made their decision based on intrinsic reasons to either mathematics itself or teaching as a profession. Significantly, a substantial number of the justifications offered fell outside the accepted tripartite framework.

To study some Bachelor's students' perception towards teaching, Tyler and Stokes (2002) examined the perspectives of both mature-aged students beginning a teacher preparation course as a second career and other teacher education students. The study sample consisted of some students who attended the University of Melbourne's Bachelor of Teaching and Diploma in Education programs. They were conducted through email with an invitation to attend one of two focus groups; mature-aged students and non-mature-aged students. Thirteen students from the first group and twelve from the second filled in the demographic survey and participated in the focus groups. Eleven open-ended questions were administered to students to report on their opinions. For the reasons relevant to people choose teaching, most participants cited a number of reasons for changing jobs, and for beginning or continuing their studies in teaching, but the most dominant justification given was that they enjoyed working with children and

young people. A belief in the importance of teaching was strongly highlighted. It was an area where they felt that they could make a difference. The other finding was in relation to the length of time that the students intend to stay in teaching. The majority of respondents stated that they intended to stay in teaching for around five to ten years, while a few thought they would stay until retirement.

In 1996, Wing studied 12 schools in Hong Kong to investigate attitudes of 123 mathematics teachers towards teaching using computers. His adopted instrument consisted of four dimensional constructs of computer attitude towards teaching of mathematics by using computers. The study found that most of teachers have never been trained to use computers in teaching mathematics. The message of integrating computers in mathematics teaching is slowly circulated through different information channels. Therefore, teachers have little experience and knowledge about the topic. However, mathematics teachers do not resist using computers. Most of them have computers at home and use computers for institutional tasks at schools. They also hold a positive attitude towards the use of computers in their lessons. Nevertheless, their perceived behavioral control is relatively lower.

Wai (1996) examined five social factors: gender, level of teaching, training, working experience and social class of teachers. These factors represented the variables of Wai's study which aimed at finding out the relation between them and teachers' perception of professionalization. The researcher conducted his study on 608 teachers from 70 schools. Seven-attitudinal-point responses were recoded as agree and disagree responses in the main study. The results revealed that the teachers most strongly agree to the subscale of

professionalism. The weighted mean of the professional competence subscale is the lowest one. The training factor appeared as the most significant one to affect the perception of teacher professionalization. On the other hand, the level of teaching and working experience of teachers are highly correlated to the training factor. It was considered worthy to give training to all teachers.

Jamil et al. (2011) conducted a study to examine the effects of in-service training on teachers' performance in the secondary schools. This study was applied on 437 students and 73 teachers. They found positive effects of in-service training on teacher performance. Also Rahman, Jumani, Akhter, Chisthi, and Ajmal (2011) examined the relationship between teacher training and the effectiveness teaching in terms of student achievement. They found that teachers had positive attitudes towards teacher training and its effectiveness in the classroom situation including actual academic work, classroom management, assessment procedures, assignments, and developing human relationships with students, principal, and society in general.

Jahangir, Saheen, and Kazmi (2012) examined effect of the Higher Education commission's sponsored in-service teacher training on the trainee's concept about good teachers. They used pre and post-test design with 46 female lecturers and assistant professors from Peshawar University. Findings of this study indicated a significant change in perception of the trainees between pre- and post-in-service training programs.

Oluwakemi (2011) studied how teachers' personnel management (teacher's motivation and development) contributes to their productivity. This

study was conducted in Oyo metropolis senior secondary schools. It found that teachers' motivation and development predict their productivity. This study recommended that the teachers need to acquire more knowledge through in-service training such as seminars, conferences, and workshops in order to improve their competencies.

Avila and Baetiong (2012) used the metacognitive strategies in their study to determine the effect of an in-service training on these strategies. They studied teachers' attitudes towards the use of metacognitive strategies before and after the in-service training on the metacognitive strategies. Also, they studied the significant differences between teachers' professional performance before and after the in-service training on the metacognitive strategies. This study found that the in-service training on metacognitive strategies significantly affected teachers' attitudes towards metacognitive strategy use and their performance in teaching.

Andrew (2000) investigated the effects of professional development on improving classroom-teaching practice. The study sample consisted of teachers from 30 schools, in 10 districts, in 5 states. Researcher started by examining the quality of teachers' professional development in Eisenhower and other professional development activities and their effects on changing teaching practice in mathematics and science between 1996 and 1999. Data analysis provided a description of teachers' experiences in professional development activities over a two-year period 1997–98 and 1998–99. In each of these years, teachers were asked to report on the characteristics of one professional development activity that they found particularly helpful in their class. The Eisenhower program supported between 21 and 28 percent of the activities of

teachers in the longitudinal sample in 1997–98. Another major finding of this research was that the professional development with high quality features did significantly increase teachers' use of active, project-centered instruction. It also revealed that professional development focusing on specific teaching strategies in 1997–98 did increase teachers' use of these strategies in1998–99.

Alavi and Askaripur (2003) considered job satisfaction as an attitude, which reflects the mental enjoyment that people gain from their jobs through satisfaction of needs, interests, and hopes. It is an attitude that employees gain in long term regarding their profession and their organization (Rad & Yarmohammadian, 2006). Job satisfaction in this sense is influenced by many external and internal factors such as the working conditions, the salary, the job tasks, the relationships between employees and managers including levels of communication between them, and so forth.

Fishbein and Ajzen (1975) argued that positive or negative attitudes towards a behavior can lead to enactment of that behavior, by way of behavioral intentions. Organizational researchers have theorized that attitudes towards the job, specifically job satisfaction, should be related to job behaviors, most commonly measured as performance. Although the theoretical proposition that attitudes cause behavior makes intuitive sense – and is supported by a great deal of empirical research (Sutton, 1998) – the Theory of Reasoned Action may not be applicable to the relationship between job satisfaction and performance. It is possible for employees to have a different attitude towards the job than they do towards the behaviors they perform on the job.

The Theory of Planned Behavior (Ajzen, 1991) is based on claims that attitudes regarding a behavior lead to intentions to perform, and then to actual performance of the behavior. As to the relationship between performance and satisfaction, if job satisfaction has nothing to do with performance behaviors, then the attitude would not necessarily lead to these behaviors. For example, employees with low level performance could be very satisfied with the work because they like the opportunities offered by the job in terms of being able to interact with other people. In such situation, the employees form their attitudes on the social aspect of work rather than on task performance, thus satisfaction with the job would not necessarily lead to higher levels of performance (Ajzen & Madden, 1986). This argument is also supported by Harrison, Newman, and Roth (2006) who argue that employee attitudes are related to their behavioral engagement in work roles. So employees with higher levels of job satisfaction are more likely to be engaged in their work, which cause higher levels of performance.

A close study of the literature revealed many interesting observations. Researcher noticed that these studies have focused on each variables in separation of others. For example, Akkus (2010), Green & Magliaro (2006), and Nadeem et al. (2011), investigated the relationship between teachers' attitudes towards the teaching profession and teachers professional performance. Also, Downs et al. (2008), Jahangir et al. (2012), and Jamal et al. (2011), studied the effect of the in-service training on teachers' professional performance. In this regard, it is felt that a more focused study of the variables affect teachers' professional performance should combines and studies these variables relationships in one model. In beside

of that, the previous studies were tackled the relationship between the variables through studying the direct, indirect and total effects of the independents on the dependent variable. Studying the direct, indirect, and total effects would reveal a more comprehensive picture about the relationship between variables.

2.7 Summary

This literature review began with a review of the literature on intention revealed theories. In the topic of attitudes, the theory of reasoned action (Fishbein & Ajzen, 1975) was discussed focusing on the history of attitudes and the ability of attitude change. In the theory of performance, Campbell et al. (1993) presented two broad approaches to professional performance. First, dimensions of the performance domain are identified which define categories of professional performance that apply to all jobs. Second, the causal patterns of relations between the various dimensions and antecedents of professional performance explain the variability and the causal sequences of professional performance. The second section presented the related studies.

CHAPTER THREE

METHODOLOGY

This chapter explains the methodology of the research. Its sections cover population, sampling, instruments and data analysis included describing the approach and suitable software.

3.1 Population and Sampling Design

According to the Ministry of Education (2012), number of teachers in the academic year 2011/2012 is 51811 [89.21% Omani] teachers distributed over 11 educational governorates. As described in the section on limitations, the population of this study represents only:

1. Cycle two teachers in the basic education excluding Individual Growth subject teachers (sport, art, music) and life skills teachers.
2. All Omani teachers who have a bachelor degree or above and are teaching in the cycle two of Basic Education schools.

These limited terms in population characteristics are based on several reasons, such as: (a) the sample size is too large to be handled because of the total number of Omani teachers, in different specializations, and (b) most bachelor degree holders were graduated from several universities.

In this research, a stratified random sampling technique was used to select the sample of the study. Stratified sampling techniques are generally used when the population is heterogeneous, or dissimilar, where certain homogeneous, or similar, sub-populations can be isolated as strata. Table 3.1 represents the distribution of the study sample.

Table 3.1

Distribution of the Study Sample

Educational Governorates	Humanities science		Applied science		n
	M	F	M	F	
Muscat	20	23	18	19	80 (22.9%)
Sharqia- South	15	18	15	16	64 (18.3%)
Sharqia- North	16	15	19	17	67 (19.1%)
Dakhelia	21	17	19	20	77 (22%)
Batena- South	14	16	17	15	62 (17.7%)
n	86 (24.6%)	89 (25.4%)	88 (25.1%)	87 (24.9%)	350
N	175 (50%)		175 (50%)		

3.2 Instruments

Data collection was based on two instruments concerning the study variables:

- Teachers' attitudes towards teaching scale,
- Teachers' professional performance evaluation instrument.

3.2.1 Teacher Attitudes' Towards Teaching Scale

An attitude is a concept in psychology that takes a positive, negative or neutral view of an attitude object. In this study, attitudes are the degree of belief adopted by teachers' attitudes towards teaching as a career. I developed an instrument, named teachers' attitudes towards teaching scale (TATTS) based on a review of literature on attitudes and on how to build measurement instruments, such as Ajzen, 1993; Bell, 1993; Carr, 1995; Denscombe, 1998; Hoinville & Jowell, 1978; Lipscomb, 1966; Moser & Kalton, 1997; Rokeach, 1972; Trainds, 1971). (see appendix A).

The teachers' attitudes towards teaching scale consists of three parts. The first part seeks some demographics variables about the teachers; such as gender (G), work experience (WE), in-service training (IST), specialization (SP) and cumulative grade point average (CGPA). The second part includes 15 items related to teachers' self-professional development (SPD). This part asks teachers

to choose some self-development techniques which they are using to improve their professional abilities.

The third part of this scale asks teachers to select their perceived degree of contentment with 36 items describing their attitudes towards teaching as a career. These items are presented in two ways, 23 of them as positive items and 13 items developed as negative items. The scale is a 5-point Likert-scale; strongly agree, agree, undecided, disagree, and strongly disagree.

3.2.1.1 Teachers' Attitudes towards Teaching Scale Content Validity

As enclosed in Appendix B, the first draft of the teacher attitudes' towards teaching scale included 55 items. To measure the items' content validity, I handed the draft of 55 items to 9 subject matter experts (arbitrators) from the departments of Psychology in Sultan Qaboos University, the College of Education in the State of Nizwa, and from the department of educational supervision at the Ministry of Education in the Sultanate of Oman. In addition to their specialization, the selection of arbitrators was based on their experience in several researches in attitudes' field. I asked the arbitrators to read the items and determine the suitability of each item to measure teachers' attitudes towards teaching using five suitability points scale; very high, high, medium, weak and unsuitable. In addition, I requested the arbitrators to determine each item's clarity.

The content validity ratio's formula (CVR) was developed by Lawshe in 1975: [$CVR = (n-N/2)/(N/2)$] where n is number of arbitrators indicating the item is

essential, and *N* is the total number of arbitrators (Lawshe, 1975). In addition, Lawshe provided a table of critical values for the content validity ratio. According to Lawshe's table, the critical value in case of 9 arbitrators starts from .78. Therefore, from 55 items, 36 items have registered .78 or more of content validity ratio (see Table 3.2).

Table 3.2

Percentages of Arbitrators Feedback on the Attitudes Scale's Items.

Items (55)	Content Validity Ratio
Teaching is a profession deserved to be respected.	**.86**
I would be pleased, if my son / daughters wish to be a teacher.	**.82**
I feel I am criticized for being a teacher.	.76
I care about using available facilities in school to present an interesting lesson.	**.81**
There is no privilege in teaching.	**.88**
Teaching requires a great deal of creativity and innovation.	.77
Teaching is a source of nuisance.	**.91**
I am getting more enthusiastic when a student discusses me the subject.	.76
Teaching requires modification of concepts, methods and aids	**.80**
Teaching is a job for whom without a job.	**.93**
I am so happy being surrounded by my students.	.77
Diligence in lesson preparation is a waste of time	**.81**
I will be glad to be promoted for a training course in my field of specification	**.84**
Teachers are more aware of their future ambitions and perspectives.	**.82**
I am not with teachers working after duty hours.	.76
Teamwork increases my job enthusiasm.	**.83**
The academic upgrading (higher education) will help me to enhance my profession.	.77
My profession makes me worth the respect in front of my family and students' parents.	.76
I will never feel proud of my job whatever financial facilities I will get	**.85**
Teaching profession worth the effort.	**.90**
No need for exchange a classroom's visits between teachers.	**.80**
I feel proud when I am visited or stopped by parents to ask about their sons / daughters.	.75
Many teachers have achieved a lot of success.	**.88**
The presence of teacher trainees makes me proud of my profession.	**.89**
Teaching hinders me from dealing with my daily life.	**.84**
If I were not a teacher, I would hope to be a teacher.	**.93**
I feel safe among my colleagues and students.	.69
I will be ready to join any training program, even at my own expense.	**.83**
I do not like talking about teaching problems.	.73
It is important for an educational expert to experience teaching for a long time.	.75
Teaching makes me active towards the social matters that concern my students.	**.82**
Teaching restricts my freedom in dealing with my community.	.75

The teacher is a good model to be followed.	**.93**
It frustrates me the delay of the textbooks arrival to the school.	**.89**
I am a teacher so I am respected.	**.90**
For me, teaching is a burden not a profession.	**.91**
I present good lessons only when visitors attend.	.76
The concept of "teachers' lifelong learning" grasps my attention.	.71
It is so boring to trace students' individual differences.	.69
What I am doing is great and has everlasting impacts.	**.82**
Being competent in my field provides me strength in my character.	.73
It is a good idea to retire and have good financial facilities.	**.84**
Participating in the parents and teachers council in the school is worthwhile work.	.73
I will be proud to be chosen as a trainer in my school or reign.	.77
I do not like giving students extra lessons.	**.85**
I yearn to read my advisory visit report immediately.	**.88**
As a teacher, there is no meaning for "comprehensive quality in education".	**.81**
Teaching is a very impotent profession compared with other official professions.	**.90**
In my point of view , no one pries teaching profession.	**.80**
Giving teachers 'teaching license' after certain year of experience is a good idea.	**.92**
I had good memories of teaching practice in the college.	**.89**
By the end of the day, I should forget all about teaching.	**.85**
Reading and self-development in professional are unimportant to me.	.74
Providing suitable teaching conditions will increase my enthusiasm to teaching.	**.86**
Seeing my students in a better job makes me proud.	**.89**

As in Table 3.2, items those in **Bold** (.78 or more) represent the last version of the attitudes scale. The 36 items scale was administered in the pilot study to find out the factorial validity.

3.2.1.2 TATT scale's Piloting and Initial Factor Analysis

The teachers' attitude scale was piloted, randomly, on 150 teachers from five educational governorates. This procedure was to study the factorial validity of the scale. Exploratory factor analysis and confirmatory factor analysis were studied to reach the purpose. The primary objective of Confirmatory Factor Analysis is to determine the ability of a predefined factor model to fit an observed set of data. CFA allows one to test the hypothesis of whether a relationship exists between the observed variables and the latent variables (Albright, 2006).

Using SPSS 18.0, the 36 items teachers' attitudes towards teaching scale were experimented with exploratory factor analysis (EFA). The factor analysis gave the value 0.8 based on the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy's index which is considered a good value regarding this index. In the test of factor loading, the eigenvalues of Kaiser's criterion were appeared 11 values placed above 1.0. According to Kaiser's criterion, only factors with eigenvalues greater than 1 can be retained (Kaiser, 1960). Therefore, 11 factors have loading on the scale's items. Based on the factor loading values and the shape of the scree plot (Figure 3.1), I used Varimax Rotation to rotate the factors.

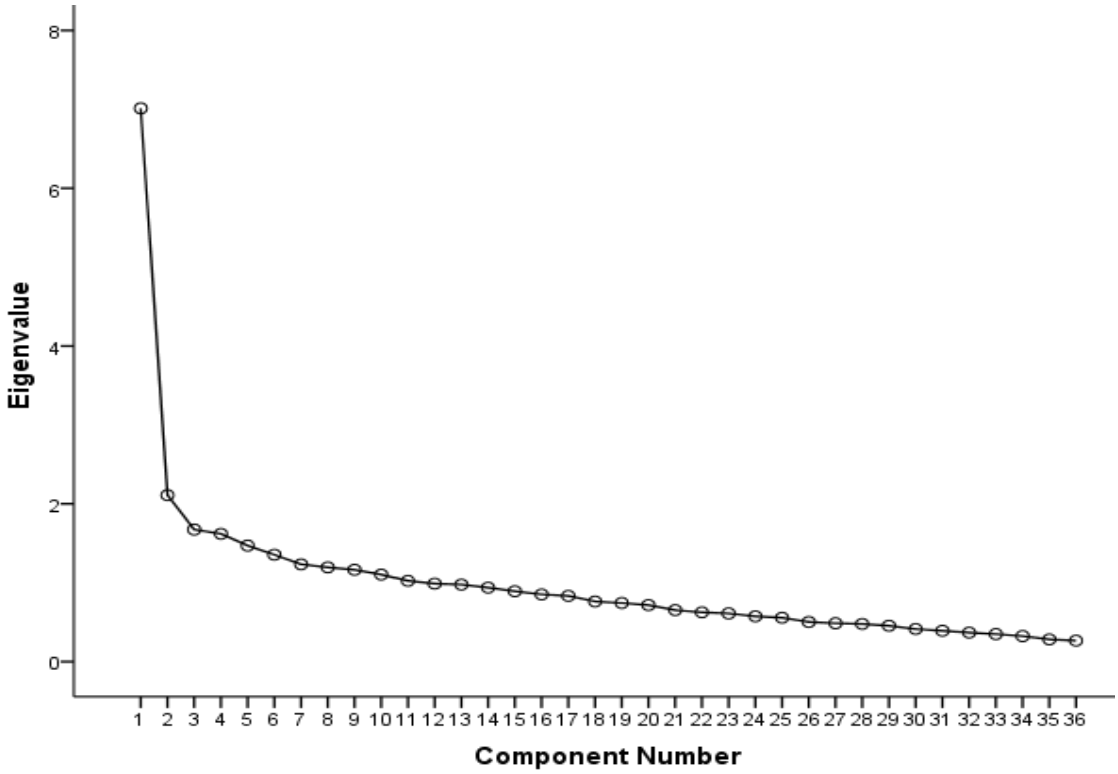

Figure 3.1. Scree plot of the components' number.

Varimax Rotation extracted two factors with the coefficient 0.3 or above. According to the literature review in chapter 2, the attitudes, theoretically, addressed in three components; (1) cognitive component, (2) affective component, and (3) behavioral component. Based on the literature on attitudes, the first factor's items tend to present teachers' personal view towards teaching as a career and the second factor's items tend to present the teachers' beliefs about importance of teaching requirements. So, the first factor has been named "View Towards Teaching " and coded as VTT. The second factor has been named "Importance of Teaching Requirements" and coded as ITR.

Table 3.3 shows values loaded by the two factors to each item in the TATT scale's items.

Table 3.3

Factors Loading for Factor Analysis With Varimax Rotation of Teachers Attitudes Towards Teaching (TATT) Scale

Scale's Items	Factor loading	
	View Towards Teaching (VTT) – F1	Importance of Teaching Requirements (ITR) - F2
ITEM1	**.352**	.012
ITEM2	**.513**	-.052
ITEM3	.219	**.383**
ITEM4	**.486**	.261
ITEM5	**.664**	.002
ITEM6	.026	**.442**
ITEM7	**.408**	.210
ITEM8	**.327**	.282
ITEM9	-.003	**.457**
ITEM10	.151	**.367**
ITEM11	.287	**.444**
ITEM12	**.472**	.178
ITEM13	.390	**.490**
ITEM14	**.274**	.259
ITEM15	.186	**.412**
ITEM16	.123	**.458**
ITEM17	**.623**	.170
ITEM18	**.628**	.226
ITEM19	.217	**.379**
ITEM20	**.421**	.246
ITEM21	.236	**.454**
ITEM22	-.286	**.311**
ITEM23	.151	**.519**
ITEM24	**.711**	.231
ITEM25	.295	**.505**
ITEM26	**.410**	-.009
ITEM27	**.482**	.078
ITEM28	.029	**.488**
ITEM29	**.352**	.164
ITEM30	**.390**	.295
ITEM31	**.529**	.134
ITEM32	-.051	**.493**
ITEM33	.015	**.460**
ITEM34	**.483**	.247
ITEM35	.154	**.396**
ITEM36	**.312**	.299

According to Table 3.3, a total of 19 items belong to the first factor VTT and 17 items of 36 belong to the second factor ITR.

Means, Standard Deviations, and Intercorrelations for Factors of TATT Scale

As in Table 3.4, factors VTT and ITR correlate with each other by a significant relationship as reflected by the Pearson's correlation coefficient of .52. In addition, the correlation coefficient between the whole scale and factors VTT and ITR are .93 and .81 respectively.

Table 3.4

Summary of Means, Standard Deviations, and Intercorrelations for Factors of TATT Scale

	Mean	*SD*	View Towards Teaching (VTT) - F1	Importance of Teaching Requirements (ITR) - F2
VTT - F1	51.54	10.12		
ITR - F2	54.92	6.61	.52**	
Scale (TATT)	106.45	14.7	.93**	.81**

** Correlation is significant at the level $p < .01$.

According to Table 3.4, mean of responses on the factor VTT is almost close to the mean of responses on the ITR factor which are 51.54 and 54.92 respectively. While the standard deviation of the first factor VTT reached double value of the standard deviation value of the second factor ITR. In other words, the standard deviation of the factor VTT which is 10.12 tells us that the responses are

separating more away from the mean 51.54 against the distribution of the responses on the factor ITR which are separating away from the mean 54.92 by standard deviation 6.61. Practically, the previous descriptive says that the items loaded to the second factor ITR have trended to yield the responses in convergent group. Whereas the second factor VTT's items are slightly appearing dispersed responses.

3.2.1.3 Score Reliability of Teachers' Attitudes towards Teaching Scale

After the process of applying the scale, I used SPSS software to estimate the scale's reliability by "split half (even & odd)" and internal consistency coefficient "Cronbach's alpha" methods.

a) Split Half Approach.

In this approach, the correlation coefficient between even items and odd items was calculated. The split half method helps to find the effect of items' inconsistency as a source for error using the variance between the two halves. The Pearson's correlation coefficient was .82.

b) Internal consistency approach.

This method is based on calculation of the correlation coefficient between the different items on the same scale.

1- Internal consistency of factor VTT's items.

According to Table 3.3, 19 items belong to the first factor VTT. The internal consistency between these items is .83 by Cronbach's alpha.

2- Internal consistency of factor ITR's items.

According to Table 3.3, 17 items belong to the second factor ITR. The internal consistency between these items is .75 by Cronbach's alpha.

3- Internal consistency of whole scale.

For the whole 36-items attitude scale, the Cronbach's alpha coefficient is .87. Table 3.5 presents the internal consistency for the scale and the sub-scales items.

Table 3.5

Internal Consistency for Two Factors of TATT Scale and the Whole Scale

	Teachers Attitudes Towards Teaching (TATT) - Scale	View Towards Teaching (VTT) - F1	Importance of Teaching Requirements (ITR) - F2
Number of Items	36	19	16
Internal Consistency (Cronbach's Alpha)	.87	.83	.75

Thus, the results were accepted based on Likert and others (1934) because a reliability coefficient between .62 and .93 can be trusted. Hence, following the pilot study, I administered the TATTS to 350 teachers who represent the sample of this the study.

3.3 Teachers' Professional Performance Evaluation Instrument

Teachers' Professional Performance is the level of teachers' performance when they do their teaching duties (Ministry of Education, 2010). Yearly supervisors and school headmasters evaluate teachers in accordance with certain elements. The teachers' professional performance evaluation instrument contains 20 elements, 8 of them used to assess professionalism and personal behavior and the other 12 elements to assess competency in performance. Each element takes a scale from 1 for low performance to 5 for the exceptional performance (5-point Likert scale).

The sum of the rating is categorized as follows:

- Excellent - From 90 to 100
- Very good - From 80 to < 90
- Good - From 70 to < 80
- Acceptable - From 55 to < 70
- Poor - Less than 55

According to the teachers' professional performance evaluation form (Ministry of Civil Service, 1991), the 20 elements included in that instrument are:

a) ***Professionalism and Personal Behavior*** *(administered by school headmasters)**:***

1- Personal appearance.
2- Acceptance of guidance.
3- Relationship with seniors and colleagues.

4- Relationship with parents and students.

5- Strength of personality and class management.

6- Interest in innovating work strategies.

7- Social interaction inside and outside the school.

8- Keenness on professional development.

b) ***Competency in Performance (administered by educational supervisors):***

9- Identifying and formatting of lesson objectives.

10- Identifying methods, activities and materials.

11- Monitoring evaluation and linking it to objectives.

12- Mastering the content of the subject.

13- Good use of teaching methods.

14- Skillfullness in evaluation of students' performance.

15- 15- Taking care of activities associated to courses.

16- Using proper language.

17- Sticking to annual work plans.

18- Ability to be creative, innovation and contribute to development.

19- Taking care of monthly records of students' performance.

20- Attendance.

3.3.1 TPPE Instrument's Validity and Reliability

The Teachers' Professional Performance Evaluation instrument which was developed in 1991 has been used for more than 20 years in the Sultanate of Oman. It was designed by several local and foreign experts in the Ministry of

Civil Service. This instrument is validated for use by several Ministries in the Sultanate of Oman. Using the internal consistency estimate of reliability approach, the researcher found that the Cronbach alpha for this instrument is .92. Table 3.6 summarizes details of the study instruments.

Table 3.6

Study Instruments

	Instrument-1	Instrument-2
Full name	Teachers' attitudes towards teaching scale. (TATT scale)	Teachers' professional performance evaluating instrument. (TPPEI)
Developer	The researcher.	Ministry of Civil Service (Oman, 1991).
Parts	Three parts: - Personal and professional info. - attitudes towards teaching items (36 items). - Self- Professional Development survey (15 items).	Three parts: - Personal and professional info. - Professionalism and personal behavior (8 elements). - Competency in performance (12 elements).
Instrument Reliability (Cronbach's alpha)	Factor1- VTT = .83 Factor 2- ITR = .75 Whole scale – TATT = .87	.92
Scaling Technique	5-point Likert-scale	5-point Likert-scale
Variables	Gender, specialization, work experience, in-service training, self-professional development, teachers' attitudes, and cumulative grade point average.	Teachers' professional performance

3.4 Conduct of Instruments

The instruments; teachers' attitudes towards teaching scale and the Omani teacher professional performance evaluation instrument were designed in three parts to be conducted. Firstly, a cover letter outlining the purpose and significance of the study, the confidentiality of information and directions on how and when to return the questionnaire was sent. I took into account the importance of ensuring that participants understood the purpose of the study and believed the study to be relevant to themselves as teachers. Secondly, the demographic data of respondents were collected to describe the study sample and to examine the relationships between the variables. In the first instrument, the demographic variables are the number of teacher service's file, gender, work experience, in-service training, teachers' specialization and cumulative grade point average. The second instrument has teachers' demographics with only number of teacher's service file. Finally, the third part of the scale asks teachers to select their perceived degree of agreement with 36 items describing their attitudes towards teaching as a career.

3.5 Data Collection Procedures

Regarding the selected educational governorates of the study sample, the questionnaires were administered to the teachers of sample with each section of the booklet clearly labeled. The first questionnaire was developed by the researcher directly in Arabic Language and the teacher professional performance instrument was in Arabic as well. Specific directions were given for a way of

responding to the items. Respondents were given instructions in the beginning of the booklet, as follows (see appendix F):

> *What is wanted is your own individual feeling or belief about what each item reflects. Thus, I would ask you to give followed directions an appropriate care:*
>
> ***1- Do not** respond to items in situations of tension or stress in your work.*
>
> ***2-** Be relaxed as you are reading items and **understand** them clearly.*
>
> ***3-** Answers should be **realistically** as you feel, not as what it should be.*
>
> ***4-** There is no limited time for answer, so I hope you **choose the right time** and respond to **every** item.*
>
> ***5-** Your answers will be **only** for this research's aims.*
>
> **6- *Mark** your answer on the space provided on the answer sheet.*

To respond to the questionnaire (booklet), teachers were given 14 days. In the data analysis, the missing data were assumed to be missing completely at random, and its effects were marginal (see Table 4.1). The process of administering the booklets to the teachers in schools began by requesting permission formally from the responsible departments at the Ministry of Education, then from the educational departments in the five governorates. Based on the researcher's long experience in the Ministry of Education, the booklets

were followed step by step by the vocation colleagues in the schools, which was helpful to reduce the expected number of missing cases.

3.6 Data Analysis

3.6.1 Path Analysis (PA)

The fitting assumptions between the variables' covariance matrix and the analyzed matrix in the hypothesized model are performing to produce several of indicators which are used to accept or reject the model. These indicators are called Goodness of Fit indicators. Table 3.7 presents goodness of fit indicators (Schumacker & Randall, 2004, p. 83).

The χ^2 test is widely recognized to be problematic. It is sensitive to sample size, and it becomes more and more difficult to retain the null as the number of cases increases. The χ^2 test may also be invalid when distributional assumptions are violated, leading to the rejection of good models or the retention of bad ones (Bollen & Long, 1993).

Because of these drawbacks many alternative fit statistics have been developed, though each has its own advantages and disadvantages. Another commonly reported statistic is the Root Mean Square Error of Approximation (RMSEA), a measure of fit introduced by Steiger and Lind (1980).

Table 3.7

Model Fit Criteria and Acceptable Fit Interpretation

Model fit criterion	Acceptable level	Interpretation
Chi-square	Tabled χ^2 value	Compares obtained χ^2 value with tabled value for given *df*
Goodness of fit (GFI)	0 (no fit) to 1 (perfect fit)	Value close to .95 reflects a good model fit.
Adjusted GFI (AGFI)	0 (no fit) to 1 (perfect fit)	Value adjusted for *df* with .95 a good model fit.
Root-mean-square residual (RMR)	Researcher defines level	Indicates the closeness of Σ to S matrix.
Root-mean-square error of approximation (RMSEA)	< 0.05	Values less than 0.05 indicates a good model fit.
Tucker-Lewis index	0 (no fit) to 1 (perfect fit)	Value close to .95 reflects a good model fit.
Normed fit index	0 (no fit) to 1 (perfect fit)	Value close to .95 reflects a good model fit.
Normed chi-square	1.0 – 5.0	Less than 1.0 is a poor model fit; more than 5.0 reflects a need for improvement.
Parsimonious fit index	0 (no fit) to 1 (perfect fit)	Compares values in alternative models.
Akaike information criterion	0 (perfect fit) to negative value (poor fit)	Compares values in alternative models.

Source. Schumacker & Randall, 2004, p. 82.

Using AMOS 18, I analyzed the data to get answers to the research questions. Therefore, statistical outputs used are means, standard deviations, Pearson correlations coefficients, and the path analysis. The analysis is based on

testing the fit between covariance matrix for entered variables in the analysis and the analyzed matrix in the hypothesized model.

Therefore, the path analytical model of this research proposes that the Teachers' Attitudes Towards Teaching (TATT), Work Experience (WE), In-service Training (IST), Cumulative Grade Point Average (CGPA) and Teachers' Self-professional Development (SPD) have a direct effect on the Teacher Professional Performance (TPP). More direct effects were supposed by the model such as the effect of In-service Training (IST) on Work Experience (WE), the Work Experience (WE) on the Self-professional Development (SPD), and the Teachers' Attitudes towards Teaching (TATT) on the Self-professional Development (SPD). Also, the model proposes indirect effects of teachers' attitude towards teaching (TATT) on teachers' professional performance (TPP) through the self-professional development (SPD) and an indirect effect of in-service training (IST) on teachers' professional performance (TPP) through their work experience (WE). The relationship between in-service training (IST) and self-professional development (SPD) is supposed to be via the Work Experience (WE), while the relationship between the Work Experience (WE) and teachers' professional performance (TPP) is proposed to be through the self-professional development (SPD). Also, there are 4 models derived from this model as models for the sub-groups of the study sample.

3.7 Level of Significance

To answer the research questions, all research hypotheses were tested at level of significance $\alpha < .05$.

3.8 Methodology Design

Since the conceptual framework guiding this study is based on the theory of performance (Campbell et al., 1993), theory of reasoned action (Fishbein & Ajzen, 1975), and the history of the theoretical work; related studies, the following approach is summarizing the methodology designed by the researcher (see Figure 3.2).

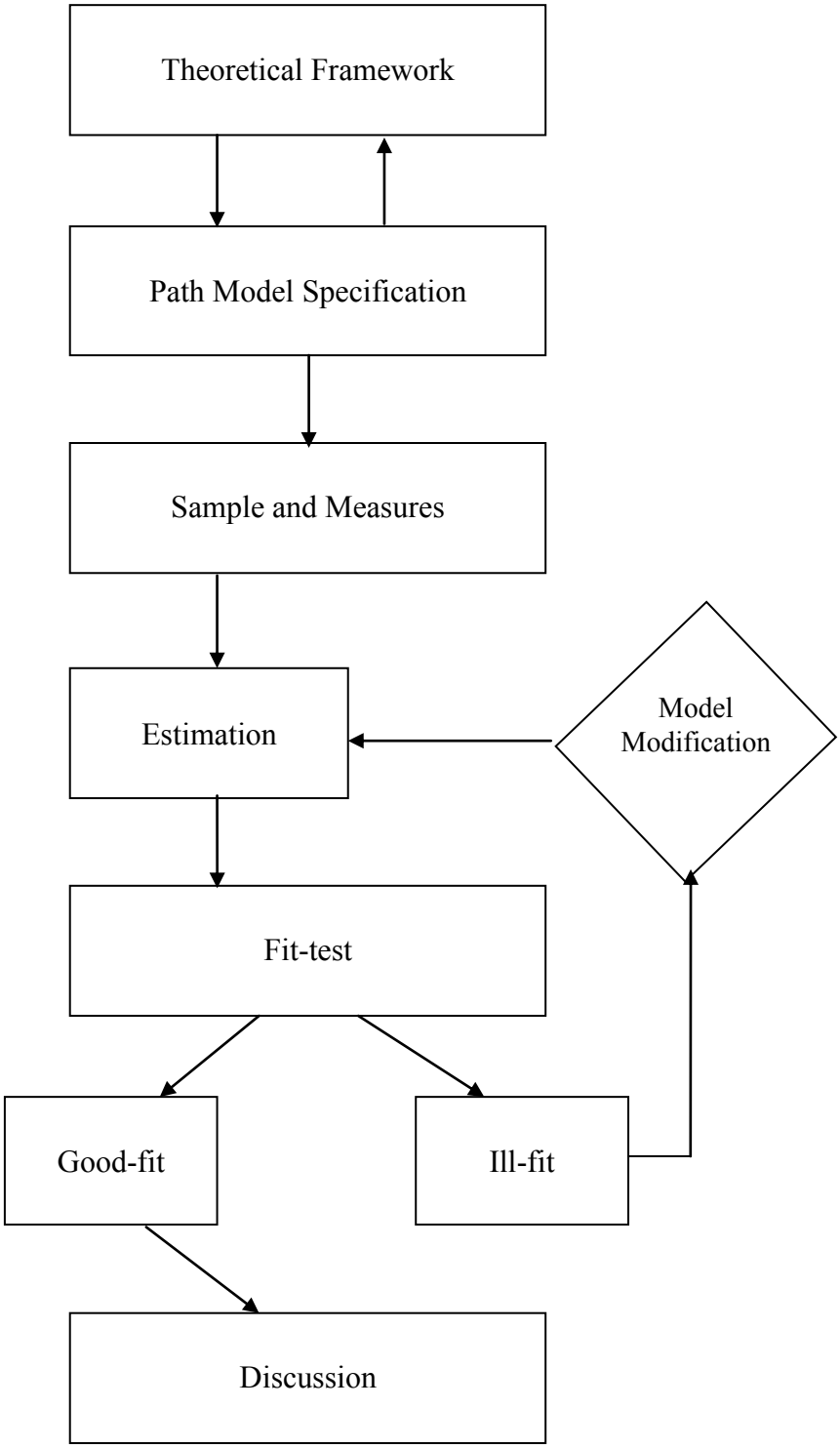

Figure 3.2. Methodology design of the study.

3.9 Summary

Chapter 3 detailed the methodology in the stages of sampling, instrumentation, data conducting, and data collecting and analysis procedures. The chapter offered that the study data is based on 350 teachers' responses to two instruments which are measuring the teachers' attitudes towards teaching and their professional performance. In addition, chapter 3 presented the path analysis as an approach to analyze the proposed model.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

To manage the statistical methodology of this quantitative study, data has been entered and analyzed using version 18.0 of the Statistical Package for the Social Sciences (SPSS) and the same version of Analysis of Moment Structures (AMOS).

In this chapter, findings are prepared to be presented in six parts. Firstly, the description of data collection, screening and cleaning. Secondly, the demographic profile of respondents. Thirdly, findings of the initial analysis which involved: (a) normality of observations, and (b) descriptive statistics; means, standard deviations (SD), skewness, and kurtosis. Fourthly, the Pearson correlations between the variables. Fifthly, the examination's findings of the path models, which present the results of fitting test between the hypothesized path models and the actual sample data, findings of direct and indirect paths which depicted the ways and the values of effects among the study variables. Finally, the multiple group comparisons findings which investigated the answer to the last question in this study.

These findings present an obvious explanation for the study questions which are determined by the researcher in chapter one; they are:

1. Does the path model produce an estimated population covariance matrix that fit the overall sample data?

2. What are the direct effects estimated by the fitted model?
3. What are the indirect effects estimated by the fitted model?
4. What are the total effects estimated by the fitted model?
5. What is the parsimony model of teachers' professional performance?
6. Are there moderator effects of gender and specialization on the fitted model?

The following research and statistical hypotheses were postulated to answer the above research questions:

$\mathbf{H_{0(1)}}$: An estimated population covariance matrix is consistent with the sample data.

$$[\ \mathbf{H_{0(1)}}: \Sigma(\theta) = \Sigma\ ]$$

$\mathbf{H_{0(2)}}$: There are no significant direct effects estimated by the fitted model at the level of 0.05.

$$[\ \mathbf{H_{0(2)}}: \beta_{(a,b,..,n)} = 0\ ]$$

$\mathbf{H_{0(3)}}$: There are no significant mediation effects estimated by the fitted model at the level of 0.05.

$$[\ \mathbf{H_{0(3)}}: \beta_{(ab,ac,..,\ an)} = 0\ ]$$

$\mathbf{H_{0(4)}}$: There are no total effects estimated by the fitted model at the level of 0.05.

$$[\ \mathbf{H_{0(4)}}: \beta_{(Total)} = 0\ ]$$

$\mathbf{H_{0(5a)}}$: There are no differences between the estimated effects in groups of males and females.

$$[\ \mathbf{H_{0(5a)}}: \beta_{(male)} = \beta_{(female)}\ ]$$

$\mathbf{H_{0(5b)}}$: There are no differences between the estimated effects in groups of applied sciences teachers and human sciences teachers.

$$[\ \mathbf{H_{0(5b)}}: \beta_{(applied\ sci.)} = \beta_{(human\ sci.)}\ ]$$

4.2 Data Collection, Screening and Cleaning

The study instruments were administered on 350 second cycle teachers from schools of five educational governorates in the Sultanate of Oman. A total of 324 teachers responded to the scale of Attitudes towards teaching (TATT). On the other hand, total scores of teachers' performance has been collected for the whole sample using the teachers' evaluation form.

Teachers from the five educational governorates were dealing with the questionnaires during the period of administrating. In the end, 26 questionnaires (booklets) were not returned and 88 questionnaires (booklets) were returned with

no responses. These set of booklets were uncontrollable for the reason that those teachers are apathetical and some of them faced difficulty to response because of their workload. In the end, the missing booklets were removed from the sample, and their effect is marginal and not represented because the normality of data is statistically available.

Data of 236 respondents were screened via studying the distribution of respondents to observed variables (items). Mainly, this procedure is necessary to detect the outliers from the dataset. According to Draper and Herzberg (1979), outliers may influence the analysis of a dataset. An outlier is an observation that lies an abnormal distance from other values in a random sample from a population. In a sense, this definition leaves it up to the analyst (or a consensus process) to decide what will be considered abnormal. If the standardized *z*-score in more than the value ±3.29 this implies the presence of an outlier which should be deleted from the data (Tabachnick & Fidell, 2001).

According to the criteria value of rejecting outliers, using SPSS 18.0 descriptive analysis, there were no outliers among the sample observations. The values of *z* calculated were between -2.48675 and +2.46371 which means the values were less than ±3.29 (Tabachnick & Fidell, 2001). Table 4.1 summarizes the sample during the stages of screening and cleaning to identify the last cleaned observations.

Table 4.1

Description of Sample Screening and Cleaning

Description	Sample Cases	Cases Deleted
Actual Sample	350	-
Screened Sample	236	114 not returned & not responded
Cleaned Sample	236	0 outliers
Final Sample	236	-

4.3 Demographic Profile of Respondents

The population of this study is all teachers working on the second cycle of the basic education. This selection of population was based on several reasons mentioned in the chapter of methodology (see chapter 3). As shown previously, the net sample to be manage is 236 teachers. The quantity and the percentage of observations of (TATT) scale are given in Table 4.2.

Table 4.2

Demographic Profile of Participants According to Gender and Specialization

Description	N	Percentage (%)
Gender		
Male	141	59.75
Female	95	40.25
Specialization		
Applied science	128	54.24
Humanity science	108	45.76

Table 4.2 classifies the demographic of participants according to gender and specialization. As tabled, males teachers who responded to scale are 59.75% (141) whereas 40.25% (95) are female teachers. Teachers of humanity science numbered 108 (45.76%) and teachers of applied science numbered 124 (54.24%) of respondents, respectively.

4.4 Preliminary Analysis

4.4.1 Univariate and Multivariate Normality

For the validation of univariate normality of observations, both skewness and kurtosis values were calculated. Skewness refers to the symmetry of a distribution while kurtosis refers to the peakedness of a distribution. According to Tabachnick and Fidell (2001), the observations have an accepted normality with zero skewness and kurtosis. The skewness outside the range ± 3.0 is considered extreme skewness (Chou & Bentler, 1995).

According to Hoyle (1995) and Kline (1998), the absolute kurtosis value greater than 10.0 may suggest a problem while absolute kurtosis index value greater than 20.0 may designate a more serious one. In this study, I used the SPSS 18.0 to test all observations for normality of each observed variable.

Table 4.3 shows skewness and kurtosis indexes for all six variables. There is no extreme value to reject the assumption of univariate normality in observations distributions. The minimum skewness registered with teacher professional performance TPP (- 1.011), while the maximum one is 0.147 in the

variable in-service training ISD. Kurtosis index appeared values between -1.068 in work experience WE, and +1.355 in teacher professional performance TPP. In addition, Table 4.3 also shows that the multivariate normality is 3.37 with kurtosis value, which is accepted according to Hoyle's (1995) and Kline's (1998).

Table 4.3

Univariate and Multivariate Normality

	Skewness	Kurtosis
Teachers Attitude Towards Teaching (TATT)	-.14	-.42
Self- Professional Development (SPD)	-.17	-.56
Cumulative Grade Point Average (CGPA)	.03	-.45
In Service Training (IST)	.15	-.98
Work Experience (WE)	.11	-1.07
Teacher Professional Performance (TPP)	-1.01	1.36
Multivariate		3.47

As Figure 4.1 showed, observations are very hugging to the line, which explores the normality of observations of the TATT scale. Also, Figure 4.2 depicts the scale's respondents observations of normality as evidenced by the histogram shape.

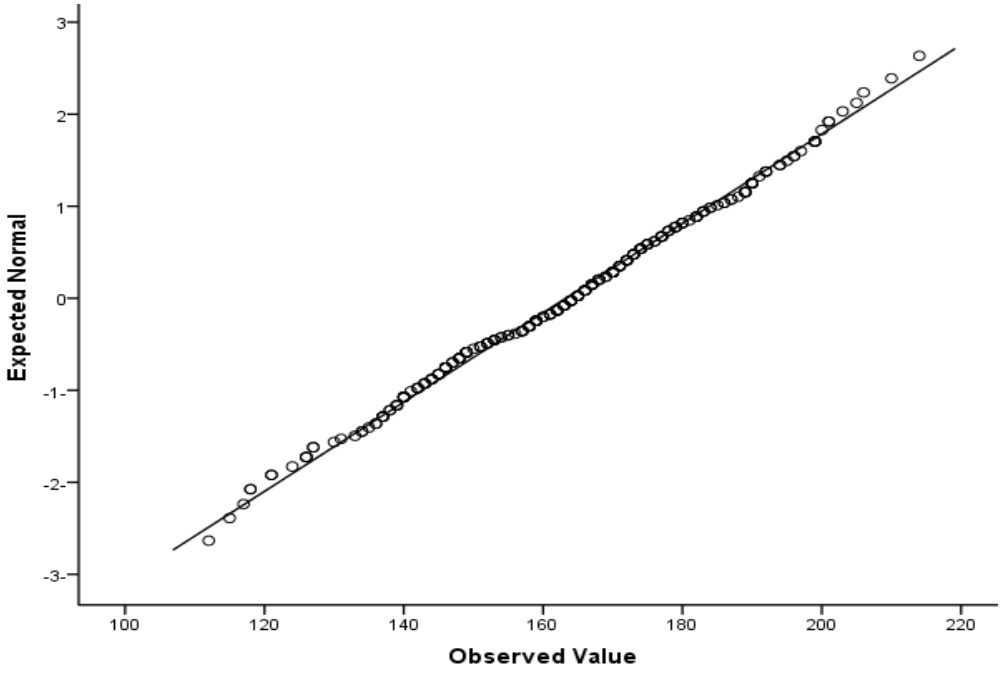

Figure 4.1. Normality of observations of TATT scale (normal Q-Q plot).

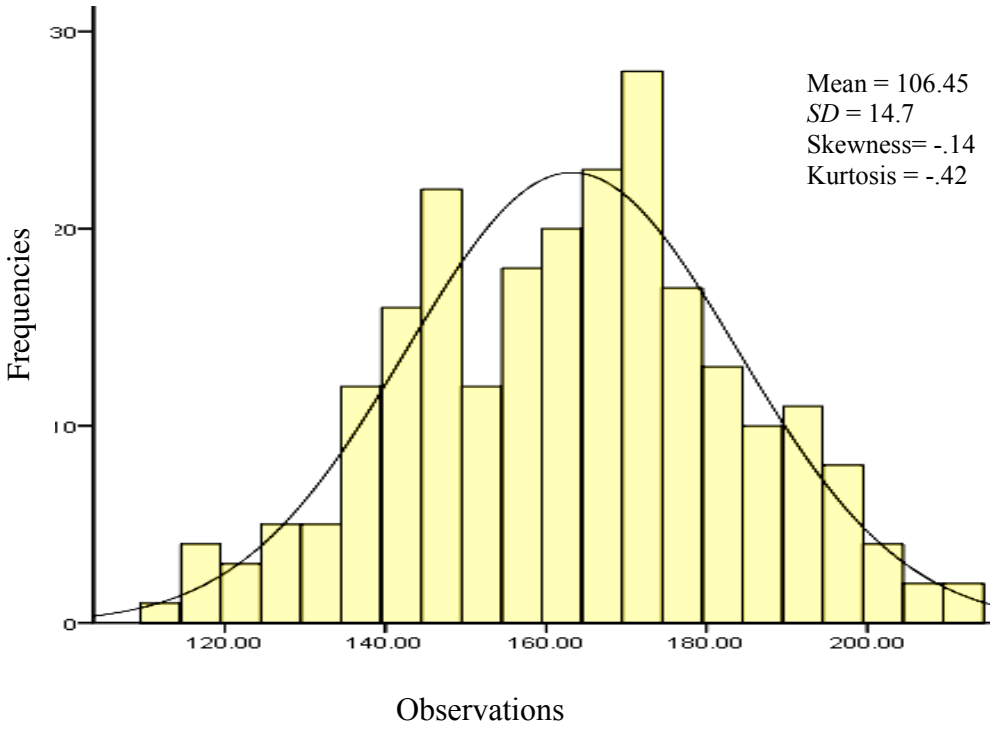

Figure 4.2. Distribution of observations of TATT scale.

4.4.2 Descriptive Statistics

Total scores of teachers attitude towards teaching (TATT), in service training (IST), work experience (WE), self- professional development (SPD), cumulative grade point average (CGPA), teacher professional performance (TPP) are the observed variables of the current research which are described in Table 4.4 according to means, standard deviations, skewness and kurtosis.

Table 4.4 shows that the variable teachers attitude towards teaching, which was measured by the 36-items scale of attitudes. The possible ordered scale responses of each item are (0) strongly disagree; (1) disagree; (2) not sure; (3) agree; (4) strongly agree. The resulting total scores mean is 106.45 and the standard deviation of the total scores is 14.7. According to scaling points which are ranged from 0 to 4, the mean is 2.96 and the standard deviation is 0.408. Therefore, teachers mostly have positive attitudes towards teaching.

The second variable, in-service training, was a nominal variable. There are four possible responses coded from 1 to 4; (1) did not get training, (2) from 1 to 3 times, (3) from 4 to 6 times, and (4) more than 6 times. The calculated mean is 2.46 and the standard deviation is 0.98. That shows the sample of the research in general was trained less than three times.

The third variable, work experience, was also a nominal variable with four responses. Teachers who have experience in teaching from 1 to 3 years are coded by 1, those with experience in teaching from 4 to 6 years are coded by 2, those with experience in teaching from 7 to 10 years are coded by 3, and teachers having experience in teaching more than 10 years are coded by 4. The computed

value of mean is 2.4 and the standard deviation is 1.00. Thus, working experience of most teachers is less 7 years.

Table 4.4

Means and Standard Deviations (SD) of Research's Variables

variables	Mean	*SD*
Teachers Attitude Towards Teaching (TATT)	106.45 (2.96)	14.7 (0.408)
In Service Training (IST)	2.46	0.98
Work Experience (WE)	2.40	1.00
Self- Professional Development (SPD)	10.50 (0.7)	2.59 (0.17)
Cumulative Grade Point Average (CGPA)	2.87	0.39
Teacher Professional Performance (TPP)	88.04	5.10

The fourth variable, self-professional development, was measured by 15 items survey using two responses scale; (0) for NO and (1) for YES. The responses based on several statements determine the availability of tools offering and using by teachers themselves to improve their profession. The resulting mean of survey scores is 0.7 and the standard deviation is 0.17. So, the statistics of this variable show that the teachers themselves are mostly developing their profession.

The fifth variable, teachers' cumulative grade point averages were offered from their service files which are available in their schools. Undergraduates in educational specialization scaled from 1 to 4 grade point, (1.00 – 1.69) PASS;

(1.70 – 2.69) GOOD; (2.70 – 3.69) VERY GOOD; (3.7 – 4.00) EXCELLENT (Ministry of Higher Education, 2007). In the current research sample, the maximum CGPA is 3.93 and the minimum is 2.00. As in Table 4.4, the mean is 2.87 and the standard deviation is 0.39. Thus, most teachers are considered to have very good cumulative grade point averages.

The final variable, teachers' professional performance, which is the dependent variable, represents the teacher score in performance evaluation form (see instruments section in chapter 3). The mean of teachers scores in this instrument is 88.04 and the standard deviation is 5.10. According to the instrument rating, scores between 80 and 89 represent a very good performance (Ministry of Civil Service, 1991). Thus, most of teachers in this research had very good performance in teaching.

As to the sample groups, which are gender and specialization, Table 4.5 and Table 4.6 display means and standard deviations of composite scores of teachers attitude towards teaching (TATT), in service training (IST), work experience (WE), self-professional development (SPD), cumulative grade point average (CGPA), and teachers professional performance (TPP) according to groups of gender and specialization.

Table 4.5

Means and Standard Deviations (SD) for the Study Variables Based on the Gender (N=236)

Variables	Male		Female	
	Mean	*SD*	Mean	*SD*
TATT	106.44 (2.96)	15.42 (0.43)	106.47 (2.96)	13.65 (0.37)
IST	2.47	1.00	2.44	0.953
WE	2.44	1.09	2.35	0.88
SPD	10.47 (0.69)	2.96 (0.2)	10.54 (0.7)	1.96 (0.13)
CGPA	2.84	0.39	2.92	0.40
TPP	87.35	5.25	89.06	4.72

Table 4.6

Means and Standard Deviations (SD) for the Study Variables Based on the Specialization (N=236)

Variables	Humanities Science		Applied Science	
	Mean	*SD*	Mean	*SD*
TATT	105.1 (2.92)	13.2 (0.37)	107.59 (2.99)	15.82 (0.44)
IST	2.43	0.95	2.48	1.01
WE	2.45	0.99	2.38	1.02
SPD	10.27 (0.68)	2.66 (0.18)	10.69 (0.71)	2.54 (0.17)
CGPA	2.85	0.40	2.89	0.39
TPP	87.70	5.02	88.33	5.17

4.5 Model Specification and Identification

Construct of the proposed model, which is built based on the theoretical framework, explains the hypothesized relationships between the study variables (independents) and their effect on teacher professional performance (TPP) as a dependent variable. Figure 4.3 depicts a proposed model for the relationships among the study variables. This model proposes that the Teachers' Attitudes towards Teaching (TATT), Work Experience (WE), In-service Training (IST), Cumulative Grade Point Average (CGPA) and Teachers' Self-professional Development (SPD) have a direct effects on the Teacher Professional Performance (TPP). A more direct effects supposed by the model, are the effect of In-service Training (IST) on the Work Experience (WE), the Work Experience (WE) on the Self-professional Development (SPD), and the Teachers' Attitudes towards Teaching (TATT) on the Self-professional Development (SPD).

The model also proposed an indirect effects of teachers' attitude towards teaching (TATT) on teachers' professional performance (TPP) through the self-professional development (SPD) and an indirect effects of in-service training (IST) on teachers' professional performance (TPP) through the work experience (WE). The relationship between in-service training (IST) and self-professional development (SPD) is supposed to be via the work experience (WE), while the relationship between the work experience (WE) and teachers' professional performance (TPP) is proposed to be through the self-professional development (SPD).

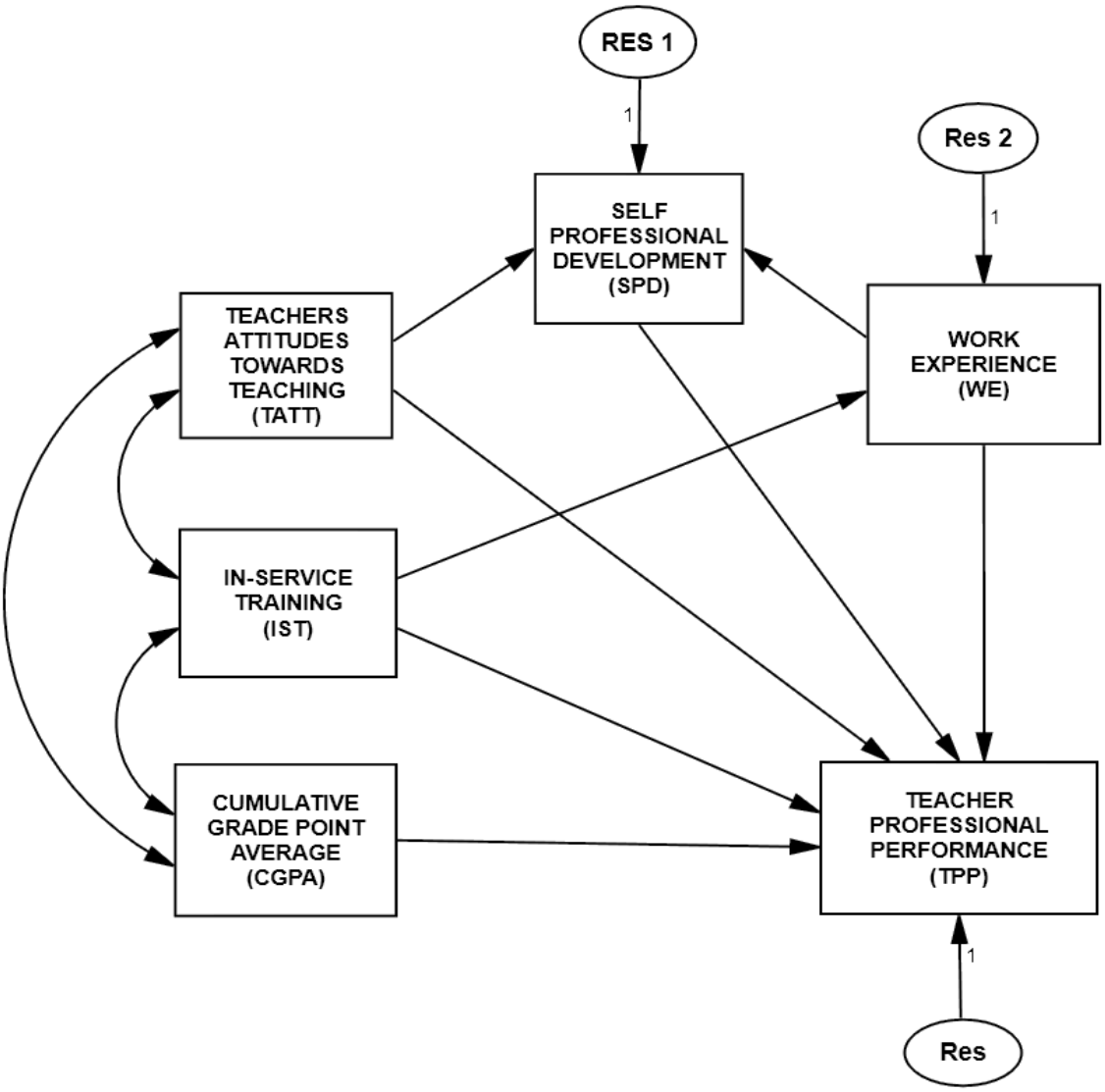

Figure 4.3. The proposed model of factors affecting Omani teachers' professional performance.

To identify the proposed model components, the contents of the model are summarized in Table 4.7

Table 4.7

A Proposed Model Description

	Quantity	Description
Total Variables	9	TATT, IST, WE, SPD, CGPA, TPP, RES, RES1, and RES2
Observed Variables	6	TATT, IST, WE, SPD, CGPA, and TPP
Unobserved Variables	3	RES, RES1, and RES2
Exogenous Variables	6	TATT, IST, CGPA, RES, RES1, and RES2
Endogenous Variables	3	TPP, SPD, and WE
Direct Effects	8	5 variables have direct effects on TPP 2 variables have direct effects on SPD 1 variable have direct effect on WE
Indirect Effects	4	3 variables have indirect effects on TPP 1 variable have indirect effect on SPD
Total Effect	9	
Total Data Points	21	6(6+1)/2
Parameters	17	

4.6 Model's Goodness-of-Fit

Research question one aims to test the goodness-of-fit of the path analytical model data. The fitting assumptions between the variables' covariance matrix and the analyzed matrix in the hypothesized model were performed to produce several of indicators which were used to accept or reject the model. These indicators are called Goodness of Fit indicators. Table 3.8 presents goodness of fit indicators (see Chapter 3, Table 3.7).

The χ^2 test is widely recognized to be misleading. It is sensitive to sample size, and it becomes more and more difficult to retain the null as the number of cases increases. The χ^2 test according to Bollen (1993) may also be invalid when distributional assumptions are violated, leading to the rejection of good models or the retention of bad ones. Because of these drawbacks many alternative fit statistics have been developed, though each has its own advantages and disadvantages. Another commonly reported statistic is the Root Mean Square Error of Approximation (RMSEA), a measure of fit introduced by Steiger and Lind (1980).

Findings of model fit analysis present a good fit model comparing an interpretation of acceptable fit, as tabled by Schumacher and Lomax (1996). As in Table 4.8, the Chi-square (χ^2) yields a value of 3.64 with 4 degree of freedom and *p*-value .457. The *p*-value is enough to retain the null hypothesis of good fit. Therefore, the difference between the expected and observed covariance matrices are non-significant.

Table 4.8

Fit Statistics of Path Model

Model	χ^2	df	*p*	χ^2/df	CFI	GFI	RMSEA
Saturated	3.64	4.0	0.457	0.91	1.00	0.99	0.000 (p = .705)

Other indices to test the model fit are Comparative Fit Index (CFI) and Goodness of Fit Index (GFI). CFI and GFI values from 0.90 to 1.00 indicate good fit (Hu & Bentler, 1999). In the current model, the CFI is 1.00 and GFI is 0.99. Therefore, CFI and GFI indicated that the model has a good fit with the data of the overall sample. The Root Mean Square Error of Approximation, as another index, also confirmed the goodness of fit between the model and the data (RMSEA = 0.00). Indeed, tests of fitting confirmed that the path model is a good fit model to the overall sample data. Thus, the previous findings answered research question one.

4.7 Model Estimation

Path analysis is a straightforward extension of multiple regression. Its aim is to provide estimates of the magnitude and significance of hypothesized causal connections between sets of variables. Path analysis procedures are using the same idea of confirmatory path analysis, but in path analysis some dependent variables could be considered as independent variables for other dependent variables.

To move from the input diagram (Figure 4.3), which represents a proposed model, to the output diagram (see Figure 4.4), path coefficients (beta weights) were estimated using the AMOS 18.0 software.

To be more informative, based on the output path diagram (Figure 4.4), the standardized paths coefficients estimate the values 0.01, 0.08, 0.01, 0.25, and 0.44. These coefficients represent the size of change in the dependent variable, which is teacher professional performance (TPP) that is attributed to teachers' self-professional development (SPD), in-service training (IST), teachers' attitudes towards teaching (TATT), work experience (WE), and cumulative grade point average (CGPA) respectively.

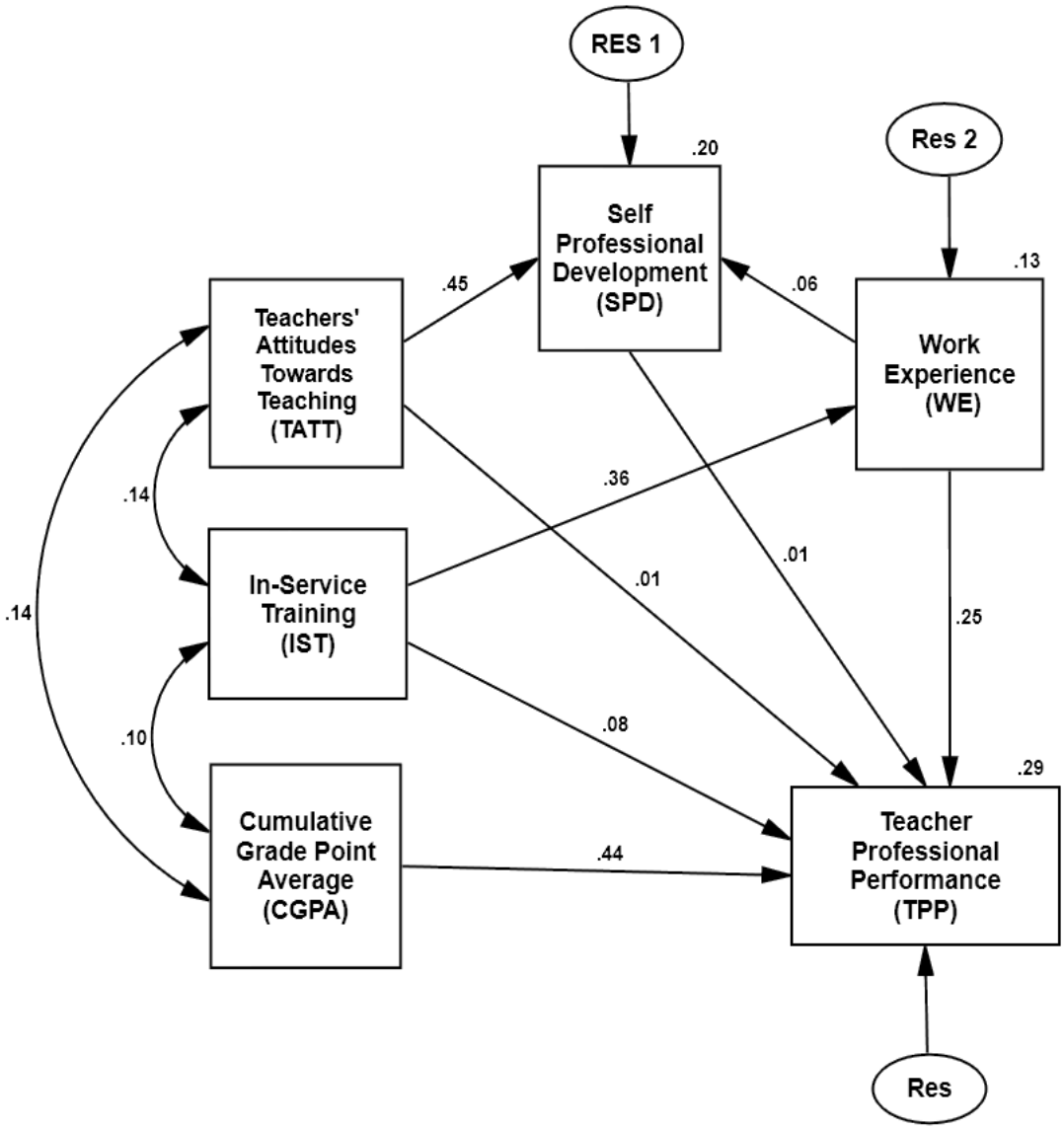

Figure 4.4. Standardized coefficients (beta) of path analytical model.

As in Figure 4.4, the squared multiple correlation (R^2) is shown near the endogenous variables: SPD, WE, and TPP. Therefore, the model structural equations explain 20%, 13%, and 29% of the variance of each endogenous variable, which are self-professional development, work experience, and teacher professional performance, respectively. In other words, 29% of variance in teachers' professional performance (TPP) is explained by teachers' attitudes

towards teaching (TATT), in-service training (IST), cumulative grade point average (CGPA), teachers' attitudes towards teaching (TATT) and self-professional development (SPD), and in-service training (IST) and work experience (WE).

In addition, Table 4.9 provides a description of the standardized and unstandardized paths coefficient, standard error (SE), and critical ratio (CR) among the model observed variables using the confidence interval 95%. Four out of the eight paths were statistically significant. They are the paths from work experience to teachers' professional performance, from cumulative grade point average to teachers' professional performance, from in-service training to work experience, and from teachers' attitudes towards teaching to self-professional development. The results also showed that there are two significant correlations which are between teachers' attitudes towards teaching and in-service training, and between teachers' attitudes towards teaching and cumulative grade point average.

Table 4.9

Path Coefficient and Covariance Path Parameter Estimation

	Path	Standardized Coefficient	Unstandardized coefficient	SE	CR
R^2= .29	TPP <--- SPD	0.01	0.01	0.12	0.09
	TPP <--- IST	0.08	0.44	0.31	1.41
	TPP <--- TATT	0.01	0.01	0.02	0.24
	TPP <--- WE	0.25***	1.25	0.30	4.15
	TPP <--- CGPA	0.44***	5.59	0.72	7.78
R^2= .13	WE <--- IST	0.36***	0.37	0.06	5.89
R^2= .20	SPD <--- TATT	0.46***	0.08	0.01	7.61
	SPD <--- WE	0.06	0.15	0.15	1.09
		Correlations	Covariances		
TATT	<-----> CGPA	0.14*	0.84	0.38	2.18
TATT	<-----> IST	0.14*	1.94	0.95	2.05
CGPA	<-----> IST	0.10	0.04	0.03	1.54

*** $p <$ .001, CR= $\left| 3.10 \right|$, * $p <$ .05, CR= $\left| 1.96 \right|$

To summarize findings of the path analytical model, Figure 4.4, Table 4.8, and Table 4.9 present that: (1) the model fits the data, (2) the strongest predictor of teacher professional performance is the cumulative grade point average (β = .44, p < .001), (3) the second predictor of teacher professional performance is the work experience (β = .25, p < .001), (4) the strongest predictor of teacher self-professional development is the attitudes towards teaching (β = .45, p < .001), and (5) the predictor of teachers work experience is the in-service training (β = .36, p < .001).

4.8 Direct Effects Estimation

Research question two was about the direct effects estimated by the fitted model. As in Table 4.10 and Figure 4.5, the path model hypothesized five factors affecting teachers' professional performance, directly. They are self-professional development (SPD), in-service training (IST), teachers' attitudes towards teaching (TATT), work experience (WE), and cumulative grade point average (CGPA).

Table 4.10 and Figure 4.5 show β-values of standardized direct effects within the confidence interval 95%.

Table 4.10

β-Values, Standard Errors(SE), and Bias-correlated Confidence Intervals for the Path Model. (Standardized Direct Effects)

Path			Standardized **Direct** Effects			
			β	95% CI		*p*
				Lower	Upper	
TPP	<---	SPD	0.01	- 0.13	0.17	0.863
TPP	<---	IST	0.08	- 0.03	0.2	0.153
TPP	<---	TATT	0.01	- 0.11	0.14	0.824
TPP	<---	WE	0.25***	0.12	0.36	0.002
TPP	<---	CGPA	0.44***	0.30	0.53	0.003
SPD	<---	TATT	0.46***	0.32	0.55	0.001
WE	<---	IST	0.36***	0.25	0.46	0.001
SPD	<---	WE	0.06	- 0.07	0.19	0.381

p = two-tailed significant, *** $p < .001$

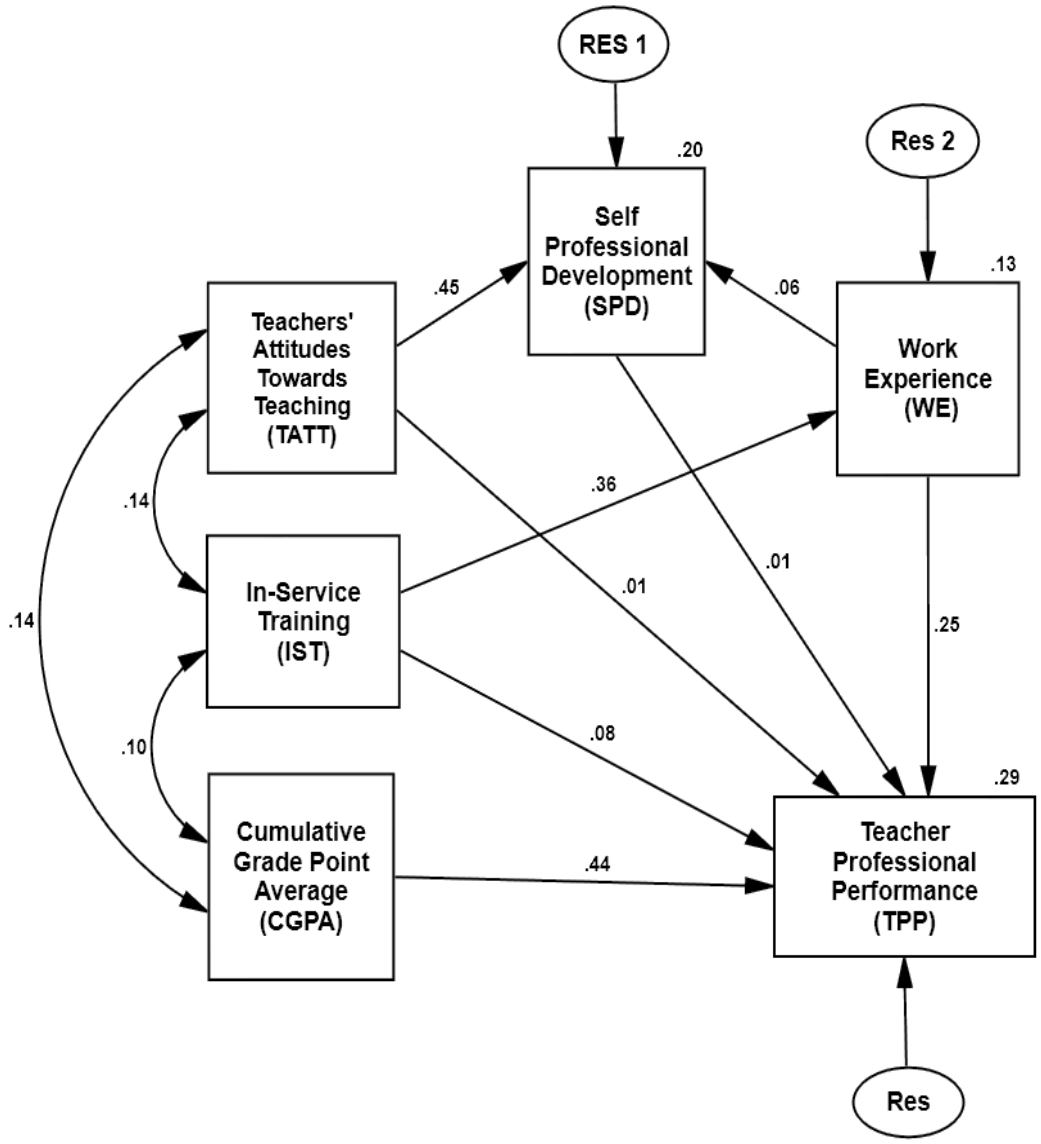

Figure 4.5. Standardized direct effects.

4.8.1 Teachers' Attitudes towards Teaching (TATT)

Theoretically, teachers' attitudes towards teaching should affect their professional performance (Duatepe & Oylum, 2004; Smith, 1993). Referring to Table 4.10, the β value, 0.01 represents the direct effect of teachers' attitudes towards teaching on teachers' professional performance. Statistically this value is

non-significant at the .05.level. On the other hand, teachers' attitudes towards teaching as a variable has significant direct effect on self-professional development (β = .45).

4.8.2 In-Service Training (IST)

As in Table 4.10, teachers' in-service training affects their professional performance directly (β = 0.08). Value of the direct effect is non-significant at the level 0.05. Thus, the training times could not be causing the teaching performance. In service training has significant direct effect on teachers' work experience (β = .36).

4.8.3 Work Experience (WE)

Table 4.10 shows that the direct effect of teachers work experience on their professional performance is statistically, significant at the level .01. An estimation of direct effect presents positive effect (β = 0.25). That means the productivity of teachers is expected to be higher with the more experienced teachers than the new teachers.

4.8.4 Cumulative Grade Point Average (CGPA)

As in Table 4.10, an estimation of the direct effect of teachers' cumulative grade point average on their professional performance appears good positive significant effect (β = 0.44, $p < .01$). Lower and upper bounds of 95% CI are 0.30 and 0.53.

4.8.5 Self-Professional Development (SPD)

The self-professional development joined the variables those have no direct effects on the dependent variable, teachers professional performance (β = 0.01).

To sum up, the path analysis of direct effects as summarized in Table 4.10 shows only two significant direct effects of teachers' work experience and cumulative grade point average on the Omani teachers' professional performance at the level of significance .001.

4.9 Indirect Effects Estimation

Research question three examines the indirect effects estimated by the fitted model. Regarding the proposed a priori model, the indirect paths suppose that the teachers' professional performance is affected by the teachers' attitudes towards teaching through the self-professional development, by the in-service training through the work experience, and by the work experience through the self-professional development. In addition, the model also proposed an indirect effect by the in-service training on the self-professional development through work experience. Table 4.11presents the standardized indirect effects estimated values.

Table 4.11

β-Values, Standard Errors(SE), and Bias-correlated Confidence Intervals for the Path Model. (Standardized Indirect Effects)

Path	Standardized **Indirect** Effects				
	β	SE	95% CI		*p*
			Lower	Upper	
TPP <--- SPD <--- TATT	0.00	0.034	- 0.054	0.078	.867
TPP <--- SPD <--- WE	0.00	0.007	- 0.009	0.020	.640
TPP <--- WE <--- IST	0.09**	0.026	0.046	0.151	.001
SPD <--- WE <--- IST	0.02	0.025	- 0.023	0.080	.313

p= two-tailed significant, ** $p < .01$

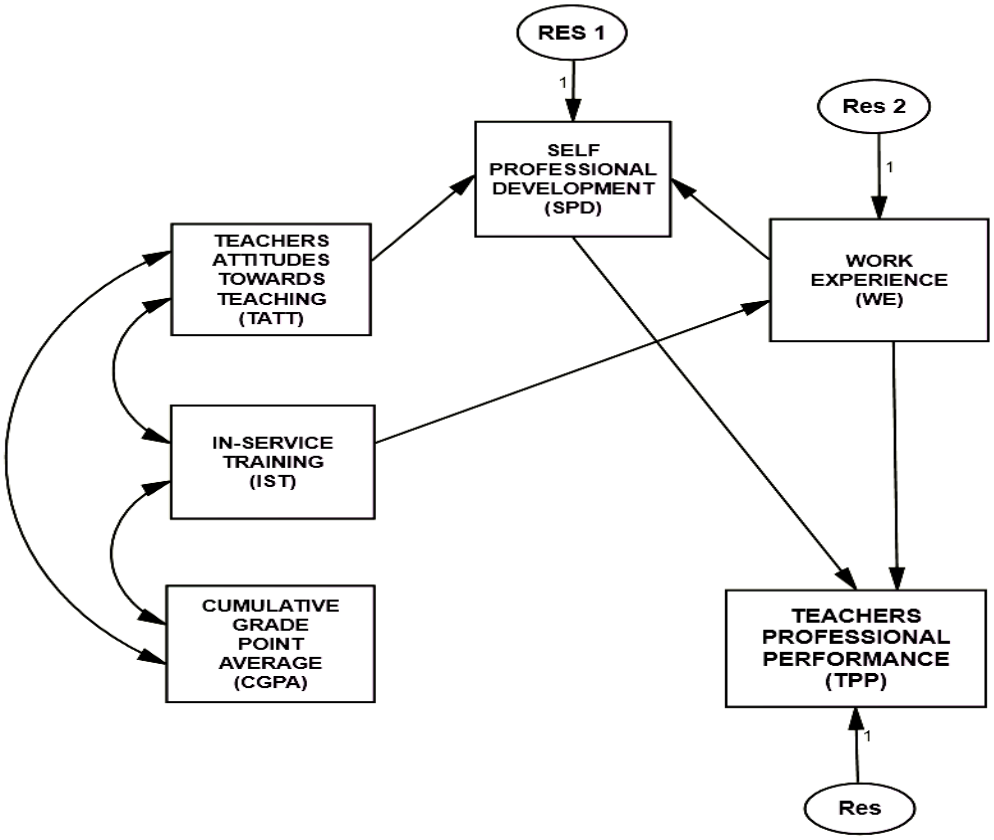

Figure 4.6. Proposed paths of indirect effects.

Referring to Figure 4.6 and Table 4.11, the indirect effects estimated values present weak mediating effect of self-professional development (SPD) and work experience (WE). The mediating effect of self-professional performance is 0.00 between teachers' attitudes towards teaching and teachers' professional performance and between work experience teachers' professional performance. the mediating effects of work experience are: 0.02 between in-service training and self-professional development and, 0.09 between in-service training and teachers' professional performance. The last indirect effect is significant at the level 0.01. Thus, we have evidence to say that the path from in-service training to teachers' professional performance is mediated by experience in work.

4.10 Total Effects Estimation

Research question four was about the total effects estimated by the fitted model. Table 4.12 summarizes the total effects between the model variables. In service training has total effect of .36 on work experience, .02 on self-professional development, and .17 on teachers' professional performance. The total effects of teachers' attitudes towards teaching are .45, which is the strongest, and .02 on self-professional development and teachers' professional performance, respectively. The second strongest effect is the total effect of teachers' cumulative grade point average on their professional performance.

Table 4.12

Standardized Total Effects

Standardized **Total** Effects					
	Teachers' Attitudes Towards Teaching (TATT)	Cumulative Grade Point Average (CGPA)	In-Service Training (IST)	Work Experience (WE)	Self-Professional Development (SPD)
Work Experience (WE)	---	---	.36** (*p* < .01)	---	---
Self- Professional Development (SPD)	.45** (*p* < .01)	---	.02	.06	---
Teachers' Professional Performance (TPP)	.02	.44** (*p* < .01)	.17** (*p* < .01)	.25** (*p* < .01)	.01

The total effects of work experience on self-professional development and teachers professional performance are .06 and .25, respectively. The lowest total effect is in the path from self-professional development to teachers professional performance (β = .01).

To sum up, the findings of the indirect and total effects tests show there is only one evidence for determining the effect of mediating variables. In other words, the work experience mediates the effect of in-service training on teachers' professional performance. Findings also show that there are nine total effects among the model variables. The weakest is the total effect of self-professional

development on teachers' professional performance and the strongest is total effects of teachers' attitudes towards teaching on self-professional development.

4.11 The Parsimony Model

Research question five was about the parsimony model of teachers' professional performance. Figure 4.7 shows the parsimony model of significant direct effects between the model factors. In this model, the included factors shape the better model that determine the impact of factors affecting teachers' professional performance (TPP). As in Figure 4.7, the cumulative grade point average (CGPA) has a strongest direct effect ($\beta = .45$) on teachers' professional performance (TPP) followed by teachers' work experience (WE) ($\beta = .28$).

This model also confirms the indirect effect of in-service training (IST) on teachers' professional performance (TPP) which is mainly mediated by the work experience (WE). Indeed, the parsimony model is restrained the effect of teachers' attitudes towards teaching (TATT) and self-professional development (SPD) on teachers' professional performance (TPP).

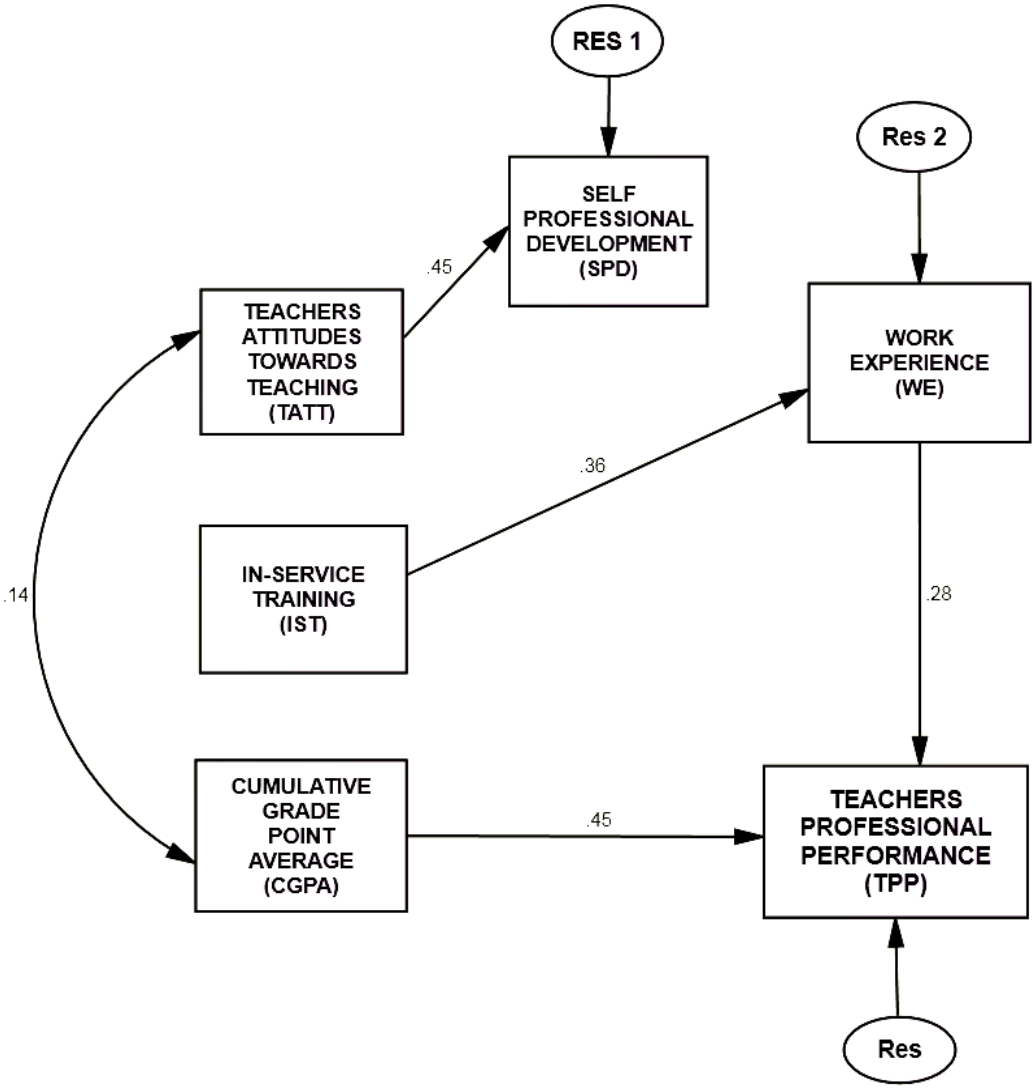

Figure 4.7. The parsimony model of significant direct effects.

4.12 Moderator Effects of Groups

Research question six aimed at investigating the significance of the sub-groups' effects among the model's relationships. To study the moderator effects of gender and specialization, multiple group analysis on the model was performed to test the differences among the sub-groups. The multiple group comparison tests involved the 95% confidence intervals (CI) which make the judgment by the overlap of values between the groups. An availability of statistically significant based on an availability of overlap between the groups' confidence intervals. Another test were used to achieve the same purpose is the Critical Ratios for differences between paths models. This kind of test is to compare the counterparts paths across the sub-groups.

4.12.1 Moderator Effect of Gender

The path model for the male teachers was fitted the data with the values given [CMIN= 2.36, DF= 4, CMIN/DF= 0.59, GFI= 0.99, CFI= 1.00, and RMSEA= 0.00]. The path model for the female teachers was also fitted the data with the given values [CMIN= 2.84, DF= 4, CMIN/DF= 0.71, GFI= 0.99, CFI= 1.00, and RMSEA= 0.00]. Indeed, the values of GFI, CFI, and RMSEA are indicative that the hypothesized model is well-fitting across the gender of teachers. Both path models are shown in Figure 4.8 and Figure 4.9, respectively.

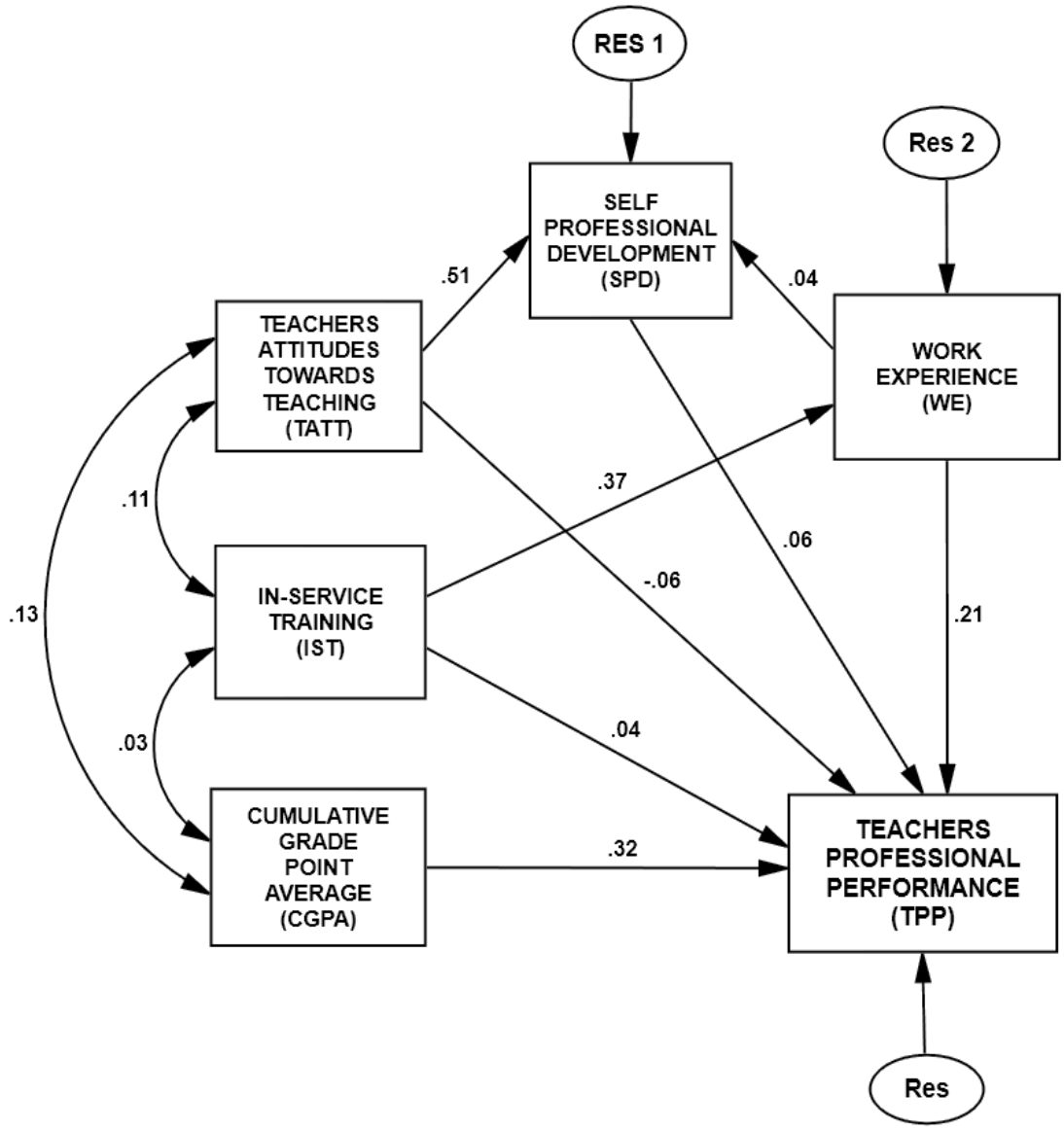

Figure 4.8. Path model for males.

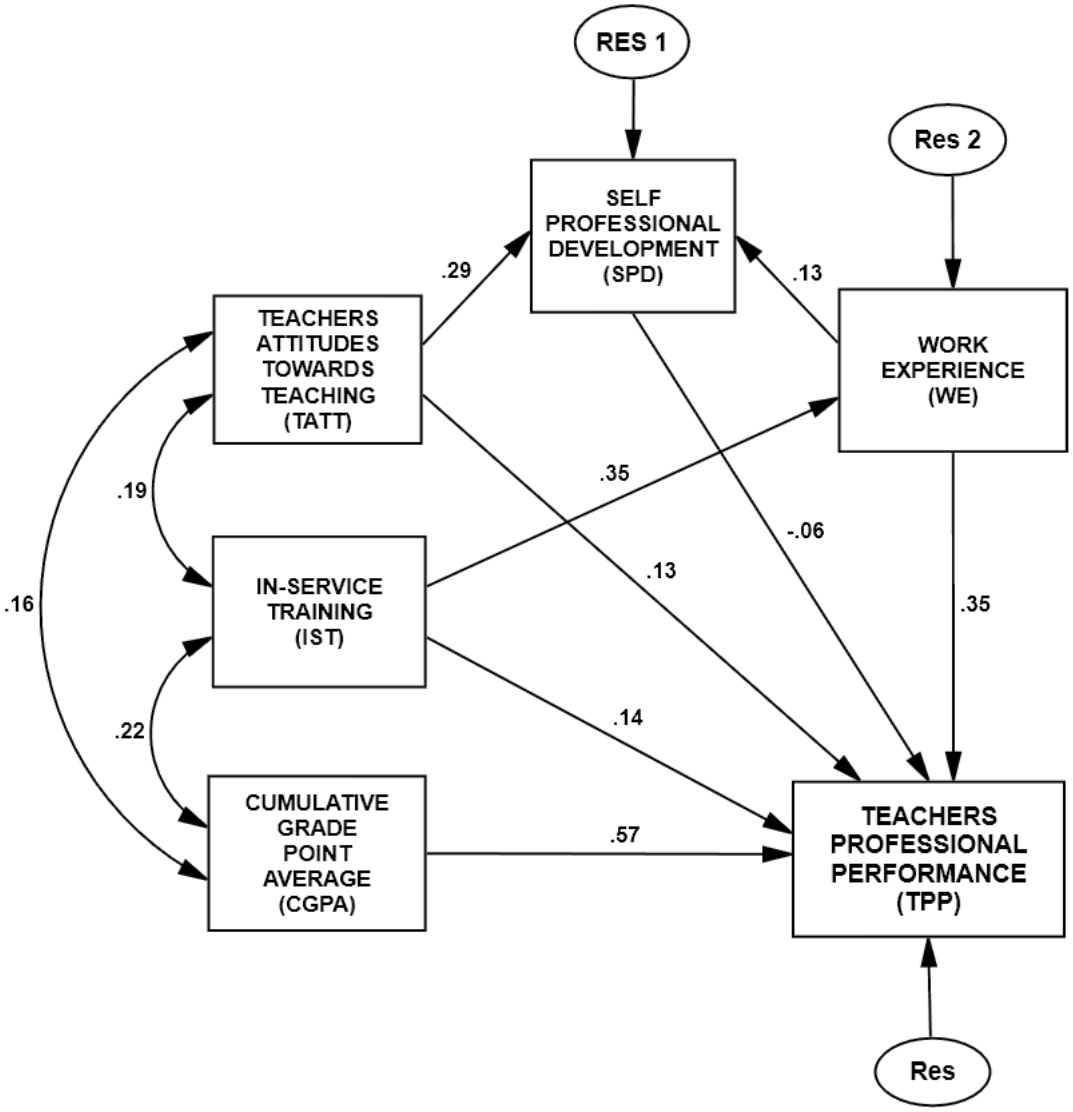

Figure 4.9. Path model for females.

The standardized regression coefficients and their 95% CI are presented in Table 4.13 and Table 4.14 for both males and females, respectively. Table 4.13 and Table 4.14 show that the confidence intervals for the male and female teachers are not overlapped with the relationship between the in-service training and teachers' professional performance. Hence, statistically, there are significant differences between male and female teachers at the .05 level of significance.

Table 4.13

Standardized Regression Coefficient for Males Group

Parameter			Estimate	95 % CI		*p*
				Lower	Upper	
WE	<---	IST	.367***	.2236	.5009	.000
SPD	<---	TATT	.511***	.3742	.6336	.000
SPD	<---	WE	.037	-.1167	.2088	.611
TPP	<---	SPD	.059	-.1487	.2770	.510
TPP	<---	IST	.041	-.1249	.2117	.621
TPP	<---	TATT	-.061	-.2318	.1201	.505
TPP	<---	WE	.210*	.0472	.3617	.012
TPP	<---	CGPA	.322***	.1372	.4735	.000

*** $p <$ .001, * $p <$ .05

Table 4.14

Standardized Regression Coefficient for Females Group

Parameter			Estimate	95 % CI		*p*
				Lower	Upper	
WE	<---	IST	.346***	.1450	.5210	.000
SPD	<---	TATT	.287**	.0808	.4938	.003
SPD	<---	WE	.134	-.1005	.3159	.171
TPP	<---	SPD	-.0583	-.1847	.0779	.318
TPP	<---	IST	.142*	-.0107	.2673	.044
TPP	<---	TATT	.126	-.0411	.2940	.067
TPP	<---	WE	.345***	.1864	.4717	.000
TPP	<---	CGPA	.573***	.4503	.6953	.000

*** $p <$ .001, ** $p <$ .01, * $p <$ .05

In another way of testing, all pairwise comparisons across male and female models were estimated to suggest a difference in the path coefficients. Using the "critical ratios for differences" in AMOS' output of analysis properties, all comparison within and between the paths of two models, as shown in Figure 4.10, are tabled in Table 4.15.

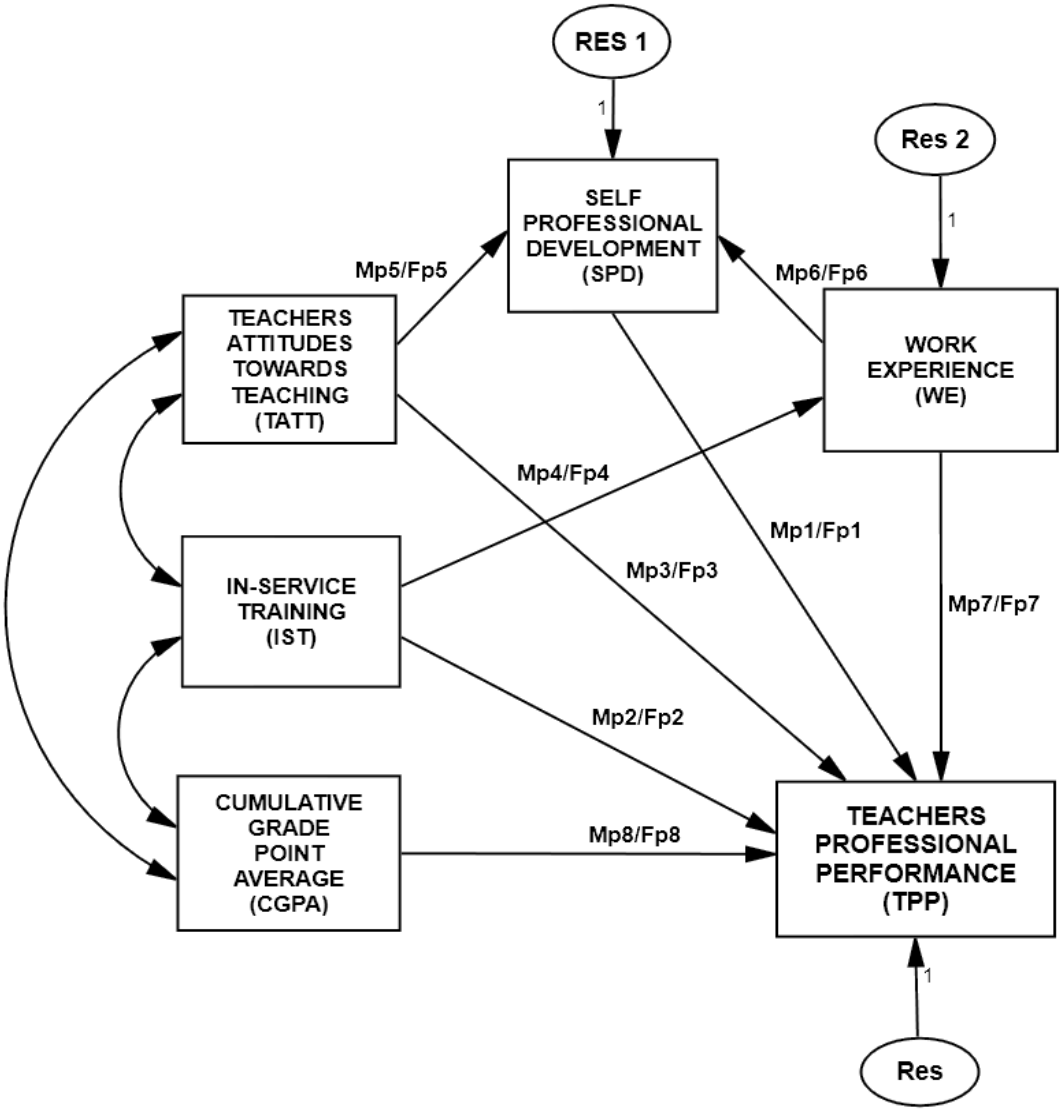

Figure 4.10. Males and females models paths parameter.

Note:
- Mp = Male path.
- Fp = Female path.

Table 4.15 presents *z*-test values for the difference between coefficients of the male model and the female model. In a two-tailed test, these values should be greater than |1.96| (absolute value of 1.96) for the difference between paths to be statistically significant at $p < .05$. Values in bold as in Table 4.15, 31 of 64 cross *z*-values greater than the absolute value 1.96. All of these values present significant differences across the accounted paths. In case of the current comparison test, the researcher is more interested in making cross-group comparisons between the counterpart paths of the models, which are underlined in Table 4.15.

Table 4.15

Critical Ratios for Differences between Paths of Male and Female Models

		Male Paths Model							
		Mp1	Mp2	Mp3	Mp4	Mp5	Mp6	Mp7	Mp8
Female Paths Model	Fp1	-1.0710	-.7623	-.7161	**-2.9045**	-1.4460	-.9378	**-2.6588**	**-4.1956**
	Fp2	1.5442	.8642	**2.0514**	.8461	1.7202	1.4938	-.5932	**-3.2584**
	Fp3	-.3828	-.3939	1.6418	**-4.0004**	**-1.9700**	-.2860	**-2.4104**	**-4.0697**
	Fp4	1.1663	.2325	**3.5981**	-.6139	**2.4562**	1.0154	-1.6880	**-3.7907**
	Fp5	-.4004	-.3998	1.8150	**-4.1274**	**-2.8768**	-.2996	**-2.4191**	**-4.0727**
	Fp6	.7057	.1621	1.4518	-.4341	.9154	.6678	-1.5795	**-3.7489**
	Fp7	**4.2991**	**2.8268**	**5.0150**	**3.8031**	**4.7082**	**4.1482**	1.4933	**-2.2136**
	Fp8	**8.2926**	**7.2616**	**8.6212**	**8.0474**	**8.4751**	**8.2154**	**6.4841**	1.8787

According to Table 4.15, z-value for the cell Mp5/Fp5 is equal to -2.8768. This value exceeds the critical value of |1.96|. The cell Mp5/Fp5 presented the counterpart paths from teachers' attitudes towards teaching (TATT) to self-professional development (SPD) in both males' and female's models. Hence, according to Figure 4.8 and Figure 4.9, we can say that the path of β-value 0.51 in the male model is statistically different from the path of β-value 0.29 in the female model. In other words, we have evidence to suggest that the path from teacher attitudes towards teaching to self-professional development is not equal across the two models of gender. Therefore, gender is considered as a moderator for the effect of some studied variables on the Omani teachers' professional performance.

4.12.2 Moderator Effect of Specialization

The path model for the applied sciences' teachers was found to be reasonable with the values of [CMIN = 7.26, DF = 4, CMIN/DF= 1.81, GFI = 0.98, CFI = 0.97, and RMSEA = 0.08]. The RMSEA value is greater than 0.05 which is indicative that the hypothesized model is not well-fitting. In another hand, the path model for the human sciences' teachers was also found to be acceptable with the values of [CMIN = 0.03, DF = 4, CMIN/DF = 0.01, GFI = 0.99, CFI = 1.00, and RMSEA = 0.00]. Both path models are given in Figure 4.11 and Figure 4.12, respectively.

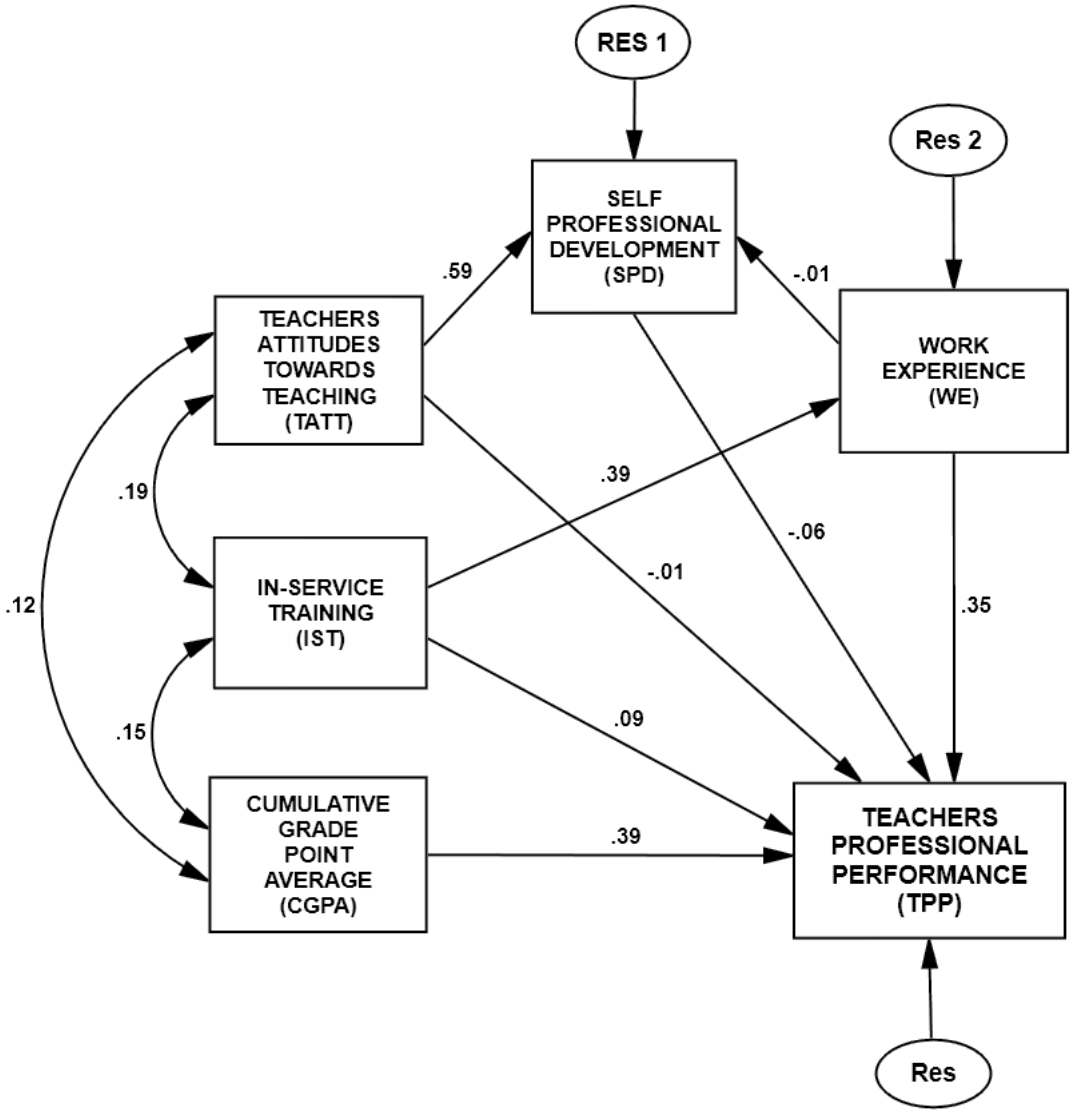

Figure 4.11. Path model for applied sciences teachers.

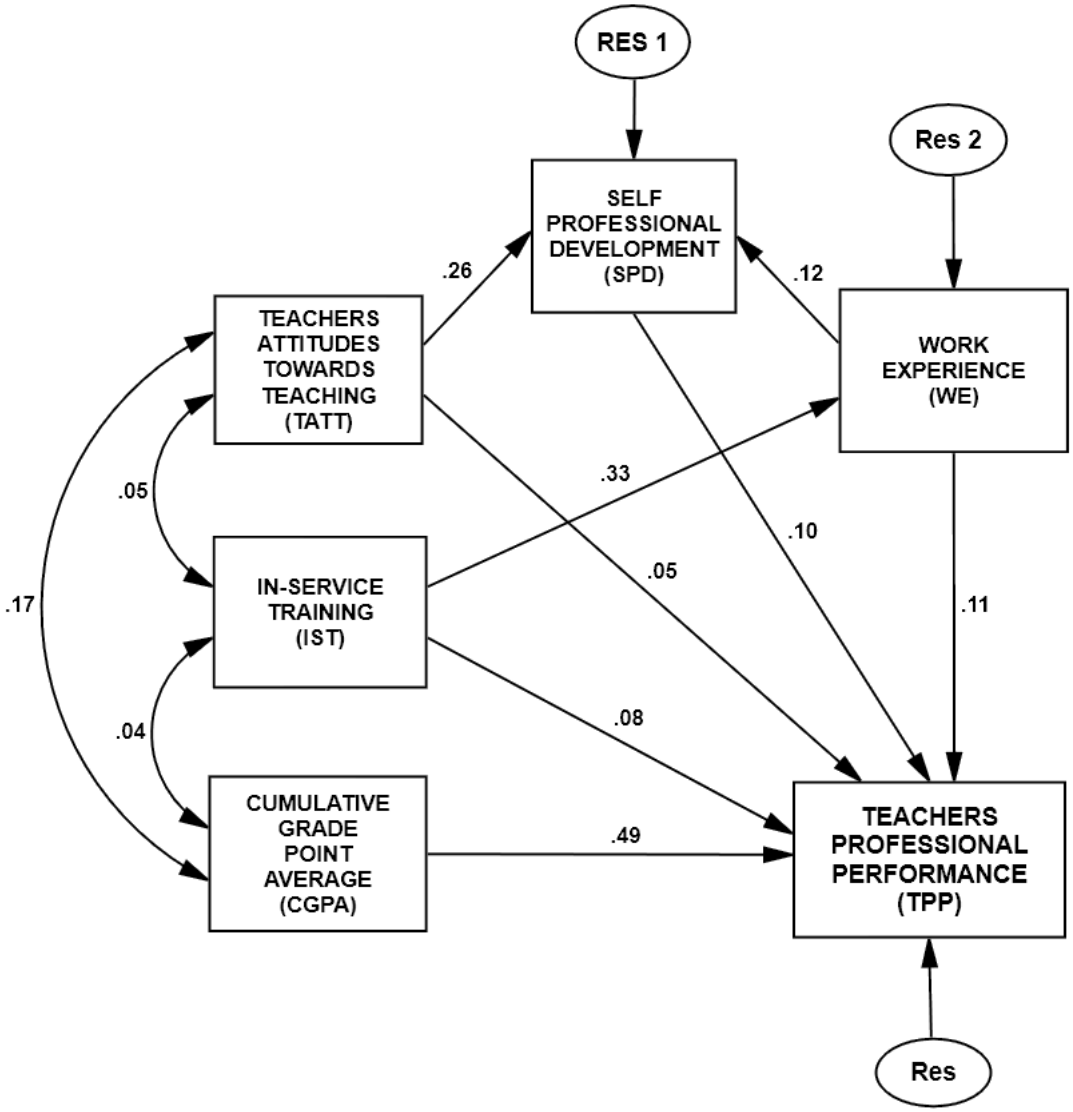

Figure 4.12. Path model for human sciences teachers.

The standardized regression coefficients and their 95% CI are presented in Table 4.16 and Table 4.17 for both applied and human sciences teachers, respectively. Table 4.16 and Table 4.17 show that the confidence intervals for the applied sciences' teachers and humanities sciences' teachers are not overlapped for the relationship between work experience and teachers' professional performance. Hence, statistically, there is a significant difference between the applied sciences

teachers and humanities sciences teachers in the affecting of work experience on professional performance.

Table 4.16

Standardized Regression Coefficient for Applied Sciences' Teachers

Parameter			Estimate	95 % CI		*p*
				Lower	Upper	
WE	<---	IST	.3875***	.2257	.5215	.000
SPD	<---	TATT	.594***	.4350	.7161	.000
SPD	<---	WE	-.009	-.1467	.1701	.897
TPP	<---	SPD	-.063	-.2725	.1369	.487
TPP	<---	IST	.092	-.0578	.2526	.253
TPP	<---	TATT	-.010	-.2189	.1917	.912
TPP	<---	WE	.349***	.1892	.4787	.000
TPP	<---	CGPA	.395***	.2293	.5255	.000

*** $p <$ .001

Table 4.17

Standardized Regression Coefficient for Human Sciences' Teachers

Parameter			Estimate	95 % CI		*p*
				Lower	Upper	
WE	<---	IST	.325***	.1549	.4868	.000
SPD	<---	TATT	.255**	.0542	.4344	.005
SPD	<---	WE	.123	.0771	.3231	.184
TPP	<---	SPD	.097	-.1107	.2944	.251
TPP	<---	IST	.076	-.0896	.2604	.373
TPP	<---	TATT	.049	-.1474	.2442	.559
TPP	<---	WE	.113	-.0776	.2934	.188
TPP	<---	CGPA	.491***	.3177	.6333	.000

*** $p <$ .001, ** $p <$ .01

In another way of testing**,** all pairwise comparisons across applied and human science models were estimated to suggest a difference in the path coefficients. Using the “critical ratios for differences” in AMOS' output of analysis properties, all comparison within and between the paths of two models, which are shown in Figure 4.13, were tabled in Table 4.18.

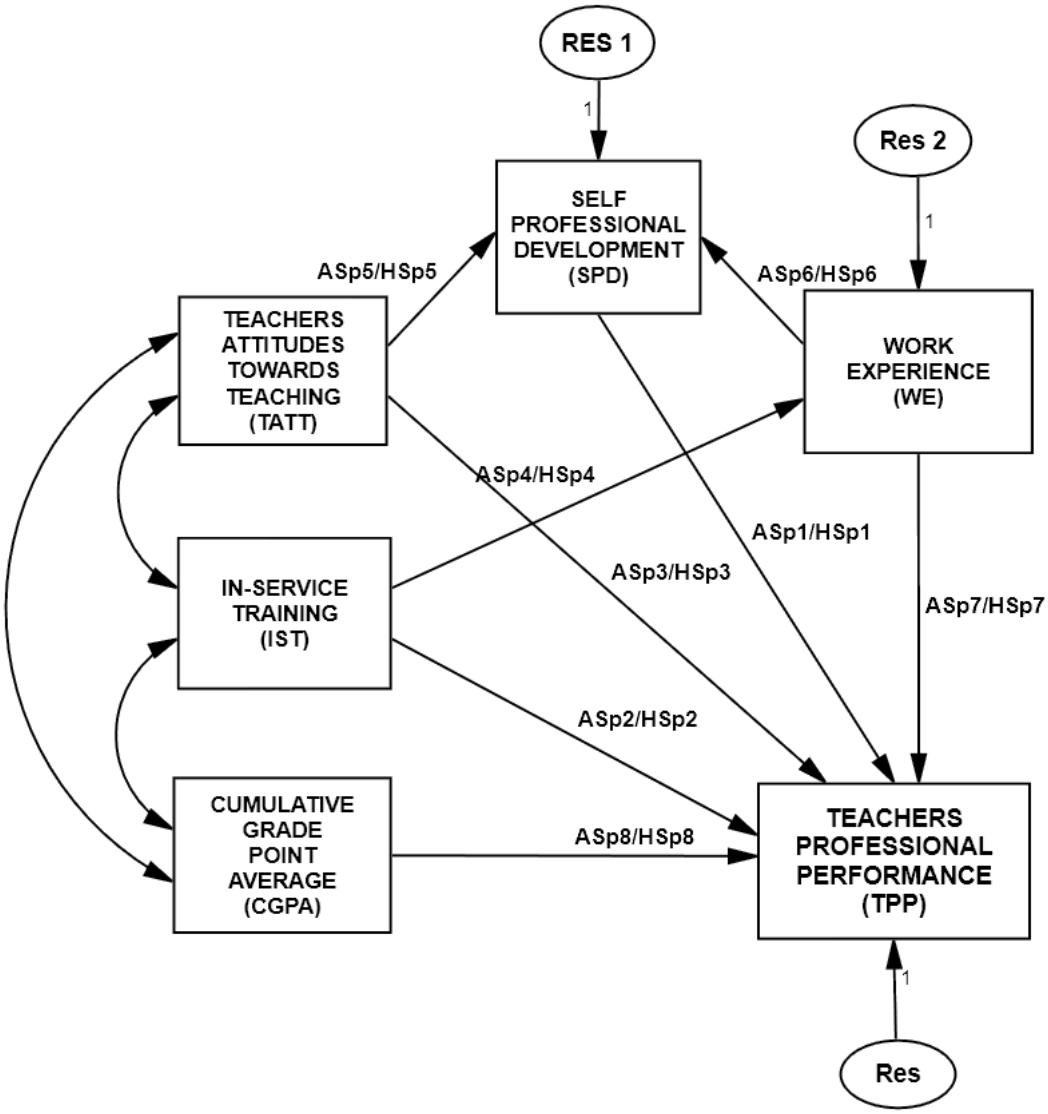

Figure 4.13. Applied and human science models paths parameter.

Note:
- ASp = Applied Science path.
- HSp = Human Science path.

Table 4.18 presents *z*-test values for the difference between coefficients of the applied sciences teachers' model and the human sciences teachers' model. There are 28 of 64 cross *z*-values, in bold as in Table 4.18, which are greater than the absolute value 1.96. All of these values show significant differences across the

accounted paths. Making cross-group comparisons between the counterparts paths models, which are underlined in Table 4.18, yields a more interesting finding. Therefore, *z*-value for the cell ASp5/HSp5 is equal to -1.9991, and thus, it exceeds the critical value of |1.96|.

Table 4.18

Critical Ratios for Differences between Paths of Applied and Human Science Teachers' Models.

		Applied Science Paths Model							
		ASp1	ASp2	ASp3	ASp4	ASp5	ASp6	ASp7	ASp8
Human Science Path Models	HSp1	1.2753	-.6572	1.1490	-1.1590	.5484	.8613	**-3.7191**	**-5.1111**
	HSp2	1.0873	-.1189	.8950	.0266	.6790	.8752	**-2.3001**	**-4.4965**
	HSp3	.7854	-1.0934	.5020	**-4.1964**	**-2.2307**	.2316	**-4.3881**	**-5.3425**
	HSp4	**2.2524**	-.3129	**3.4298**	-.3821	**2.5514**	1.8028	**-3.5051**	**-4.9915**
	HSp5	.9675	-1.0175	1.5400	**-4.0097**	**-1.9991**	.4158	**-4.3169**	**-5.3112**
	HSp6	1.4806	-.3047	1.3332	-.2388	.9428	1.1537	**-3.1038**	**-4.8769**
	HSp7	1.4844	.1570	1.3213	.4078	1.0964	1.2669	**-2.0735**	**-4.3739**
	HSp8	**6.0050**	**5.1004**	**5.9779**	**5.5759**	**5.8834**	**5.9101**	**3.9154**	.5925

Hence, according to Figure 4.11 and Figure 4.12, we can say that the path of β-value 0.59 in the applied sciences teachers' model is statistically different from the path of β-value 0.26 in in the human sciences teachers' model. Also, *z*-

value for the cell Asp7/HSp7 is equal to -2.0735. This value is greater than |1.96|, which indicated the significant difference, in comparing of the two models, between work experience and teachers' professional performance at $p < .05$. To conclude, we have evidence to suggest that the path from teacher attitudes towards teaching to self-professional development and the path from work experience to teachers' performance are not equal across the two models of specialization. That means the Omani teachers' specialization is considered as a moderator for the effect of some studied variables on their professional performance.

4.13 Summary

Chapter 4 adapted several analysis processes to present findings of the initial analysis of the descriptive indexes. Secondly, the chapter presented the findings of the model fit tests. Thirdly, findings of the path models were managed by the path analysis which also determined direct, indirect and total effects of the model variables. Finally, this chapter presented the multiple group comparison findings.

The findings showed a good fit model with the study sample data. The path analysis suggested that the teachers' work experience (WE) and cumulative grade point average (CGPA) have a significant direct effect on teachers' professional performance (TPP), while the teacher attitudes towards teaching (TATT), in-service training (IST), and self-professional development (SPD) have no direct effect on the dependent variable, TPP. The indirect effects estimated

values presented weak indirect relationships between the study variables except one significant relationship between the in-service training (IST) and the teachers' professional performance (TPP) via their work experience (WE). Findings also show that there are nine total effects among the model variables. The weakest is the total effect of self-professional development on teachers' professional performance and the strongest is total effects of teachers' attitudes towards teaching on self-professional development. The comparison of multiple group analysis presented statistically significant differences in term of the teachers' gender and their specialization.

CHAPTER FIVE

DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

5.1 Introduction

The primary purpose of this study was to realize the path analytical model of factors affecting the professional performance of the Omanis' second cycle teachers. The model proposes that the Teachers' Attitudes towards Teaching (TATT), Work Experience (WE), In-service Training (IST), Cumulative Grade Point Average (CGPA) and Teachers' Self-professional Development (SPD) have direct effects on the Teacher Professional Performance (TPP). More direct effects supposed by the model are the effect of In-service Training (IST) on the Work Experience (WE), the Work Experience (WE) on the Self-professional Development (SPD), and the Teachers' Attitudes Towards Teaching (TATT) on the Self-professional Development (SPD).

The second purpose of this study was to find indirect effects and total effects estimated by the fitted model. And finally to study the significant differences in the multiple groups according to gender and specialization.

This chapter as well presents the discussion of the findings based on the research questions and hypotheses. The practical conclusion and implications of findings will be following the discussion section. Finally, the recommendations for further researches are provided in the last section.

Descriptively, the research sample is distributed normally with Kurtosis value of 3.47 in the multivariate normality and did not exceed the Skewness range ± 3.0 in univariate normality of the research variable. It is worth mentioning that all research hypotheses were tested at the level of significance $p < .05$.

5.2 Discussion

5.2.1 Discussion of Question 1 Related Findings

The path model of this research was proposed to be analyzed using path analysis approach. Using AMOS 18.0, the goodness of fit was studied for the model of overall sample and models of sample groups.

For the first research question, the analytical results afford that the model is a very good fit with data according the values of the fit criterion. The results were found that the Chi-square (χ^2) yields a value of 3.64, which evaluated with 4.45 degree of freedom, and has a corresponding *p*-value of .909. This *p*-value is very high to retain the null hypothesis of good fit. Therefore, the differences between the expected and observed covariance matrices are non-significant at $p < .05$. To exceed the sensitive of χ^2 to the sample size as reported by Bollen (1993), a retained model fit is indicated by a Comparative Fit Index (CFI) value which should be 0.90 or greater (Hu & Bentler, 1999). Thus, the examined model was also accepted with the CFI of 1.00. The Goodness of Fit Index (GFI) value reflects a good fit as well (GFI = 0.99). The Root Mean Square Error of Approximation (RMSEA) value of 0.00 retains the model as well as another

indicator. Indeed, the conclusion is that the path model produced an estimated population covariance matrix that fits the sample data.

5.2.2 Discussion of Question 2 Related Findings

Regarding the second research question, which focuses on the direct effect proposed to be ensued by five related factors on the Omanis teachers' professional performance, the findings and their discussion are as follows.

a) Discussion of Direct Effects of Teachers' Attitudes towards Teaching (TATT)

The relationship between teachers' attitudes towards teaching and their performance in teaching as a profession has already been studied by different scholars such as Fishbein and Ajzen (1975); who established the Reasoned Action Model, Smith (1993), Nadeem et al. (2011), Tyler and Stokes (2002), Farkas et al. (2000), Duatepe and Oylum (2004), Green and Magliaro (2006), Akkus (2010), and Erawan (2011). This research found that Omani teachers' attitudes towards teaching is not the factor responsible for their low or high teaching performance. The value 0.01of the path coefficient was very low and non-significant at $p < .05$. Hence, the null hypothesis [H_0*: There are no significant direct effects estimated by the fitted model*] is retained at $p < .05$.

For sub-groups, the path analysis for both groups of males and females teachers revealed a non- significant relationship with the standardized coefficient values, - 0.06 and 0.13 respectively, between

teachers' attitudes towards teaching and their professional performance. Besides that, the standardized path analysis for the other study's groups presented low values of the path coefficient. Also the estimated values of path coefficients for the teachers' groups of, applied sciences and human sciences are, - 0.01, 0.05 respectively. These are also non-significant at $p <$ .05.

Accordingly, the research findings revealed that we cannot consider the teacher attitudes towards teaching as a predictor of the Omani teachers' performance. This finding contradicts that by Erawan (2011) who did a path analysis for factors affecting pre-service teachers' teaching efficacy. He concluded that the teachers' attitudes towards teaching profession, preparation program effectiveness, and practicum experience were significant predictors of teaching efficacy. Nadeem et al. (2011) as well as Akkus (2010) supported the previous finding and concluded that the relationship between teachers' attitudes and their performance in teaching is negative and significant at the level of .05.

To justify this research finding, the theory of individual differences sees that the type of knowledge, skills, and work habits associated with task performance are different from those associated with contextual performance. Motowidlo et al. (1997) classified the teaching in a school as a task performance. They also presented that the individual differences in ability, personality, and interests are presumed to combine and interact with training, education, and experience to shape declarative knowledge and practical knowledge and skill. Moreover, Hunter in Motowidlo et al. (1997) sees that the job knowledge and skill are represented as mediators

to achieve an effect between the ability and job performance. On the other hand, Brinol and Petty (2004) examined how the individual differences affect attitudes and how attitudes change through the aspect of knowledge and another three motives. Based on the previous brief and according to the view of individual differences' theory, teachers' attitudes towards teaching are not enough to affect their performance in teaching without the knowledge and skill. Therefore, that can explain the non-significant direct effect found between teachers' attitudes towards teaching and their professional performance.

Furthermore, the current study found that the direct effect of teachers' attitudes towards teaching on their profession performance is significant with the more experienced teachers (7 years or more). Teachers' experience could play a role in the relationship between teachers' attitudes towards teaching and their professional performance. To justify, as presented previously, the experience shapes the practical knowledge and skill (Motowidlo et al., 1997) and the knowledge changes the attitudes (Brinol & Petty, 2004), therefore the attitudes have an effect on the professional performance with the more experienced teachers.

***b) Discussion of Direct Effects of In-Service Training** (IST)*

Several studies tackled the relationship between teachers' in-service training and their professional performance. Such relationship has been studied by Jamil et al. (2011), Al-Toobi (2004), Katz (1972), Wai (1996), Andrew and Schwab (1995), and Downs et al. (2008). In the current research, the findings of the path analysis for the whole research

sample show that the direct effect of teachers' in-service training is non-significant. Based on the standardized path coefficients, the in-service training factor positively affects the teachers' performance by only 0.08. This value is not significant at $p < .05$. Hence, the null hypothesis [H_0: *There are no significant direct effects estimated by the fitted model*] is retained at $p < .05$. This finding could be attributed to the fact that the teachers training programs in the Ministry of education are of general or educational scope, not of a pure science scope. In addition, these training programs in most care are selected by stakeholders not based on the analysis of teachers' needs.

Moreover, the standardized path analysis for the groups of respondents presents low estimated values of path coefficients. However, the female group has significant direct effect by teachers' in-service training on their teaching performance. That significant value of coefficient 0.14 was investigated with the group of female teachers. While the estimated values of path coefficients of other three sub-groups which are males, applied sciences, and humanities sciences are 0.04, 0.09, 0.08 respectively. In general, the standardized path coefficients represent the amount of change in the dependent variable which is teaching performance, per single unit change in the predictor variable which is in-service training. Based on that, we can say that for every single unit of increase in in-service training, the professional performance is increased by 0.14 units with the female group.

To justify this conclusion, the significant direct effect that occurred unique only with females group is related to the significant relationship between teachers' in-service training and their previous performance in the academic qualification. In other words, the correlation coefficient between female group's in-service training and their cumulative grade point average is .22 ($p < .05$). This significant value could play a role in the direct effect happening by in-service training on teachers' professional performance (see Figure 4.5 and Table 4.9, chapter 4).

To conclude, the in-service training has a non-significant direct effect on the overall group of Omani teachers' performance, except for the female sample group. In general, these findings contradict with those by Jamil et al. (2011). However, they are in line with the previous study of Downs et al. (2008) in case of group of females teachers. The study of Jamil and others (2011) found a weak but positive significant effect, 0.204, of in-service training on teachers' performance. The current research is also in agreement with the study of Wai (1996) which found that the training factor appeared as the most significant one to affect the perception of teacher professionalization.

More links, the outcome Figure 4.5 and Table 4.9 (see chapter 4) show that there is a significant correlation coefficient between in-service training and attitudes of teachers towards teaching. That means the more times in-service training programs are held, the more teachers have positive attitudes towards their profession. This result supports the results of Tyler and Stokes (2002), Farkas et al. (2000), Nadeem et al. (2011), and

Duatepe and Oylum (2004), which revealed the significant direct effect of expert teachers' attitudes on their performance.

c) Discussion of Direct Effects of Work Experience (WE)

For the overall group and for three out of four sub-groups, the Omani teachers' work experiences perform as a good predictor of their professional performance. The standardized path analysis findings show that work experience in teaching has positive direct effects by 0.25 on the teachers' professional performance. Since this value is represented significant at the .05 level, the change in the teachers' performance is positively based on their experience in teaching. Hence, the null hypothesis [H_0*: There are no significant direct effects estimated by the fitted model*] is rejected at $p < .05$. This result also appears in the path analysis of three sample groups. The standardized path coefficient is 0.21 for the male group and it is 0.35 for the female group. These coefficients are significant at the level .05.

In the case of specialization groups, teachers of applied sciences group also have significant path coefficient ($\beta = .35$, $p < .05$), while the group of human science teachers have non-significant direct effect ($\beta = .11$, $p > .05$). These result say that the work experience of Omani applied sciences teachers plays a role in their teaching performance, while this role disappear with the Omani human sciences' teachers. To justify that, Table 4.6 describes means and standard deviation according to teachers' specialization (see chapter 4). According to that, applied science group has the greatest means values with all

variables excluding work experience. That could attribute the significance of direct effect with the group of applied sciences teachers. In addition, there are possible reasons related to a number of elements such as,

(1) the doubled quantity of Omanis human science teachers against the number of applied sciences teachers could be considered as a main element leading to decrease the effect of related efforts forwarded by the Ministry of Education to this group of teachers (Ministry of Education, 2012),

(2) The Omani Ministry of Education and the World Bank reported that retaining teachers in remote area is a challenge in teaching (Ministry of Education, Oman, 2012). Linked to that, most of teachers working far away from their places of residence belong to the human science subjects. This fact could be another justification for why the experience of this teachers' group is not affecting their professional performance, and

(3) Arabic and English languages as humanities subjects are facing a lack in proficiency. The fact of low proficiency in these subjects was documented in the report of Ministry of Education and the World Bank (Ministry of Education, Oman, 2012).

In general, similar direct effect are also documented in the work of Dokko, Wilk, and Rothbart (2009), who found that professional experience has a positive effect on performance via knowledge and skill but a negative direct effect that diminishes the overall relationship, and they provide preliminary evidence that the negative effect is driven by behavioral and cognitive rigidities. In addition, findings by Marchant (1992) and Brief and Weiss (2002) supported the current study with regard to the importance of the teachers' work experience to improve their performance in teaching.

d) Discussion of Direct Effects of Self-Professional Development (SPD)

The relationship between the variables, self-professional development and their professional performance has been studied by different researchers such as Garet et al. (2001), Andrew (2000), Porter et al. (2000), and Penuel et al. (2007). The current research found that the teachers' self-professional development is not the factor responsible for the level of their professional performance. The value of the path coefficient is very low, 0.01. Similarly, the path analysis for both groups of male and female teachers appear to have a non- significant relationships with the standardized coefficient values, 0.06 and -0.06 respectively, between teachers' self-professional development and their professional performance. Also, the standardized path analysis for the other sub-groups present low values of the path coefficient. The estimated values of path coefficients for the teachers' groups of applied sciences and human sciences are - 0.06, and 0.1, respectively.

Hence, the teachers' self-professional development cannot be considered as a predictor to the Omani teachers' performance. Hence, the null hypothesis [H_0*: There are no significant direct effects estimated by the fitted model*] is retained at $p < .05$. This result is not in line with the studies of Garet et al. (2001), Andrew (2000), Porter et al. (2000), and Penuel et al. (2007). For example, Andrew (2000), in his study, which focuses on the effects of professional development on improving classroom-teaching practice, found that the teachers report on the characteristics of one professional development activity that they found particularly helpful to a class. His study also found

that professional development that had features of high quality did significantly increase teachers' active instructions.

e) Discussion of Direct Effects of Cumulative Grade Point Average (CGPA)

Teachers' qualification with high or low grade point average, as a factor, has been studied and found to be a predictor of teachers' professional performance by several scholars such as Hall and West (2011), Darling-Hammond (2000), Ferguson and Womack (1993), D'Agostino and Powers (2009), and Blue et al. (2002). Similarly, the current research found that the standardized path analysis of the cumulative grade point average has a positive direct effect on the teachers' professional performance with the overall group and the individual groups. The value 0.44 is the path coefficient of the cumulative grade point average, which is considered a significant coefficient at the .05 level of significance. This finding suggests that for every single unit of increase in the cumulative grade point average, the professional performance is also increased by 0.44 units with the total group of teachers. Hence, the null hypothesis [H_0*: There are no significant direct effects estimated by the fitted model*] is rejected at $p < .05$. This fact also appeared on the groups of sample path analysis. The standardized path coefficient is 0.32 with the males while it is 0.57 with the females. These values are very high to be accepted at the level .05.

Cumulative grade point average of groups of specialization has also significant path coefficients. Values 0.39 and 0.49 are the values of

the standardized coefficients of paths form the cumulative grade point average for the groups of applied sciences teachers and humanities sciences teachers to their professional performance.

The cumulative grade point average has a good ability to affect the Omanis teachers' professional performance. This means that it is advisable to choose the teacher with high CGPA to achieve good performance in teaching. In addition, the significant relationship between CGPA and attitudes towards teaching shows that the CGPA is enhancing the teachers' attitudes (see Figure 4.5 and Table 4.9). In line with that, the Tennessee Department of Education and the National Institute for Excellence in Teaching (NIET) have made a contract, in the summer of 2012, to provide a four-day training for all evaluators across the state of Tennessee. More than 5,000 evaluators have been trained intensively by NIET in the state model whereby districts using alternative instruments delivered their own training. One of the reported recommendations by the Tennessee Department of Education is that the administrators consistently noted that having school-wide value-added scores has led to increase in collaboration among teachers and a higher emphasis on academic standards in all subjects (Tennessee Department of Education, 2012).

5.2.3 Discussion of Question 3 Related Findings

Research question three examines the indirect effects of the research variables. The path analytical model proposed four indirect effects. As in

Table 4.11, the indirect effects are not significant between the variables excluding a significant indirect effect of in-service training on the teachers' professional performance through their work experience. This result explains that the low value of beta, 0.09 suggests that in-service training affects teacher performance. Since the in-service training has not got a direct effect, we find it is effective, indirectly, via the teachers work experience on their professional performance.

The findings conclude that the *p*-value for the indirect effect is equal to .001. This suggests that the path from in-service training to teachers' professional performance is mediated by work experience. Hence, the null hypothesis [H_0*: There are no significant mediation effects estimated by the fitted model*] is rejected at $p < .05$. On the other hand, the *p*-values 0.867 and 0.640 indicate there is no statistical significant indirect effect of paths from teachers' attitudes towards teaching and from work experience to teachers' professional performance through self-professional development. Hence, the null hypothesis [H_0*: There are no significant mediation effects estimated by the fitted model*] is retained at $p < .05$. Based on the previous brief and according to the view of individual differences' theory, teachers' attitudes towards teaching are not enough to affect their performance in teaching without the knowledge and skill. Therefore, that can explain the non-significant the indirect effect found between teachers' attitudes towards teaching and their professional performance via their self-professional performance. This finding also could be attributed to the fact

that the development resources used by teachers themselves to improve their profession are not fixed with the real needs of teaching issues.

Findings also show that work experience is not a mediator between in-service training and self-professional development with the *p*-value of .313. Hence, the null hypothesis [H_0*: Teachers' work experience does not mediating the in-service training and teachers' self-professional development*] is retained at $p < .05$.

5.2.4 Discussion of Question 4 Related Findings

Tests of total effects between the model variables, as in Table 4.12 found that the in-service training has total effect of .359 on work experience, .021 on self-professional development, and 0.172 on teachers' professional performance. The strongest total effect at all is .445 which is between teachers' attitudes towards teaching and self-professional development. This explains that the teachers who have high attitudes towards their profession are expected to be the best in the self-professional development. Whereas, the total effect between teachers' attitudes towards teaching and teachers professional performance is .02. The second strongest total effect is .44 between teachers' cumulative grade point average on their professional performance.

The total effects of work experience on self-professional development and teachers professional performance are .06 and .25, respectively. The lowest total effect is in the path from self-professional development to teachers professional

performance (β = 0.01). The null hypothesis, [H_0: *There are no total effects estimated by the fitted model*] is rejected at the level of .05 in cases of total effects between (1) in-service training and work experience, (2) teachers' attitudes and self-professional performance, (3) cumulative grade point average and teachers' professional performance, (4) in-service training and teachers' professional performance, and (5) work experience and teachers' professional performance (see Table 4.12, Chapter 4).

5.2.5 Discussion of Question 5 Related Findings

The parsimony model (Figure 4.7) of this research identifies that the cumulative grade point average (CGPA) has a strongest direct effect on teachers' professional performance (TPP) followed by teachers' work experience (WE). This model also confirms the indirect effect of in-service training (IST) on teachers' professional performance (TPP) which is mainly mediated by the work experience (WE). Indeed, the parsimony model is restrained the effect of teachers' attitudes towards teaching (TATT) and self-professional development (SPD) on teachers' professional performance (TPP).

5.2.6 Discussion of Question 6 Related Findings

To test the moderator effects of gender and specialization, four sub-groups data were studied. The comparison tests between path models of teachers' gender and their specialization reveal significant difference between male and female

models and between applied and human science teachers' models. Therefore, both gender and specialization of Omanis teachers are considered to be moderators for the relationships between the studied factors of the fitted path model.

The path model for the males is found to have an acceptable fit with the values given [CMIN = 2.36, DF = 4, CMIN/DF = 0.59, GFI = 0.99, CFI = 1.00, and RMSEA = 0.00]. The path model for the female teachers is also found to have an acceptable fit with the values given [CMIN = 2.84, DF = 4, CMIN/DF = 0.71, GFI = 0.99, CFI = 1.00, and RMSEA = 0.00]. Moreover, applying the 95% confidence intervals reveals that the male and female teachers are not overlapped, for the relationship between in-service training and teachers' professional performance. Hence, this result means that there are significant differences between male and female teachers at the level .05. To justify the non-overlapped relationship, the significant direct effect which occurred unique only with females group is related to the significant relationship between teachers' in-service training and their previous performance in the academic qualification. In other words, the correlation coefficient between female group's in-service training and their cumulative grade point average is .22 ($p < .05$). This significant value could play a role in the direct effect of in-service training on teachers' professional performance (see Figure 4.5 and Table 4.9). Based on these findings, the null hypothesis [H_0: *There are no differences between the estimated effects in groups of males and females*] is rejected at $p < .05$. Therefore, gender of teachers is considered to be moderator for the relationships between the studied factors of the fitted path model.

In addition, the comparison tests between applied sciences teachers and the human sciences teachers also show non-overlapped estimated values for the path from teachers' work experience to their professional performance. The standardized path coefficient with the applied sciences teachers is significant while it is not significant in the human sciences teachers. In general, the previous conclusion is supported by different empirical researches such as Organ and Near (1985) and Dalal (2005). According to that, the applied science group has the greatest means values with all variables excluding the work experience. To justify the non-overlapping of paths from work experience to professional performance across group of teacher' specialization, there are several reasons. Firstly, the doubled quantity of Omanis human science teachers against the number of applied sciences teachers could be considered as a main element leading to decrease in the effect of related efforts forwarded by the Ministry of Education to this group of teachers (Annual educational statistics book, Oman, 2012). Secondly, the Omani Ministry of Education and the World Bank reported that the retaining teachers in remote area is a challenge in teaching (Ministry of Education, Oman, 2012). Indeed, most of teachers those working far away from their places of residence are the human science teachers. Thirdly, Arabic and English languages as humanities subjects are facing a lack in proficiency. As pointed out by the Ministry of Education (2012), the schools students' achievement shows a lack of proficiency in some human science subjects. Based on these findings, the null hypothesis [H_0: *There are no differences between the estimated effects in groups of applied sciences teachers and human sciences teachers*] is also rejected at $p < .05$. Therefore, specialization of Omanis teachers is considered to be moderator for the relationships between the studied factors of the fitted path model.

5.3 Conclusion

The hypotheses of this research were tested at the $p < .05$ level of significance and the sample was distributed normally with kurtosis value of 3.47 in the multivariate normality and not exceeding the Skewness range ± 3.0 in univariate normality of the research variable. The path analytical model, a priori, proposed that teachers' attitudes towards teaching (TATT), their work experience (WE), their in-service training (IST), their cumulative grade point average (CGPA) and their self-professional development (SPD) are affecting the Omani teachers' professional performance (TPP). Findings of fit tests indicate a good fit indexes with the overall sample data [$\chi^2 = 3.64$, df = 4, CFI = 1.00, GFI = 0.99, and RMSEA = 0.00]. This confirms that the proposed path model's construction was based on the theoretical framework adapted by this research.

In summary of the direct, indirect effects, and total effects, the path analytical model of factors affecting teachers' professional performance in the Sultanate of Oman has proven that only two factors directly affect the teachers' performance. They are teachers work experience factor by a significant path coefficient value of 0.25, and the cumulative grade point average factor by significant path coefficient value of 0.44. Whereas, teachers' attitudes towards teaching, in-service training, and teachers' self-professional development are statistically non-significant factors. Also, the path analytical model of factors affecting teachers' professional performance in the Sultanate of Oman has shown that only one factor has an indirect effect on the teachers' performance through the work experience. It is the in-service training factor by significant value of 0.09 of standardized path coefficient. In addition, findings also show that there are nine

total effects among the model variables. The weakest is the total effect of self-professional development on teachers' professional performance and the strongest is total effect of teachers' attitudes towards teaching on self-professional development.

The multiple groups' comparison tests identified significant differences between the model of male teachers and the model of female teachers and between the model of applied sciences teachers and the model of human sciences teachers. This result explains that the groups of gender and specification are moderators for the relationships between the study variables with the Omani teachers. Finally, comparing the values of the paths coefficient reveals that there is evidence to suggest that the path from teacher attitudes towards teaching to self-professional development is not equal across the two models of gender, and the path from teacher attitudes towards teaching to self-professional development and the path from work experience to teachers' performance are not equal across the two models of specialization.

Although Smith (1993) documents a good relationship between teachers' attitudes towards teaching and the teaching practice, the teacher attitudes in this study are not affecting the teachers' performance, but it has a high effect on the teachers' self-professional development by 0.45 of significant path coefficient. This result indicates that positive attitudes towards teaching encourage teachers to develop their skills and practices in teaching. In addition, the findings found that the more experienced teachers are the more effect their attitudes have on their professional performance. To sum up, the effect of positive or negative teachers'

attitudes towards their job on their performance has a statistically significant effect with the more experienced teachers rather than the new teachers.

5.4 Implications

Modernizing the teachers' knowledge and skills in the Sultanate of Oman is a main issue facing the Omanilization of the teaching profession (Ministry of Education, Oman, 2012). As to the potential significance of this research, studying the factors affecting teachers' professional performance has a number of implications to the Omani educational system in different dimensions.

In the matter of teachers' attitudes towards teaching, the path analytical model of this research shed light on the importance of attitudes in the field of teachers' self- professional development as a relative factor enhancing the teachers' knowledge and skills. Consequently, knowing the teachers' attitudes towards their profession is an important matter needed in dealing with teachers in the education sector. So, this research suggests developing attitudes scales to measure experts teachers' attitudes towards their profession. This will enable the stakeholders to stand on the teachers' attitudes based on empirical insight that they currently lack. As a sequence, their negative attitudes towards teaching can be altered to increase their productivity in the schools of the Sultanate of Oman.

Also, to face the problems encountered when applying the policy of Omanilization in teaching, there is a need to build attitudes scales for both new and old Omani teachers. Suggested scales' results could help the decision makers

to classify the teachers and modify their attitudes positively using several suitable programs. Liven and Grab in Fahmi (1977) posited that attitude change is possible; they claim that we can do a lot of things to change or modify the psychological field of someone. It indicates that we can impart attitudes and teach them just like we do with other things (see Chapter 2 – section 2.3).

Moreover, the significant relationship between teachers' cumulative grade point average and their attitudes towards teaching shows that the cumulative grade point average is enhancing the teachers' attitudes towards their profession. So, it is useful to choose the teacher who has high cumulative grade point average to achieve a good performance in teaching in addition to improving the attitudes with the existing teachers. In other words, this provides a better vision on the criteria to elect teaching personnel. Cumulative grade point average is the best criterion to predict better performance in teaching. Therefore, the Ministry of Education in the Sultanate of Oman in this regard has to liaise with other higher education organizations to guarantee good quality of new teachers.

In the Omani context, and to the best knowledge of the researcher, there are no attempts to systematically study the factors responsible for shaping the Omani teachers' professional performance. Findings of this research push us to be serious when dealing with the process of teacher appraisal. Three factors are affecting the teachers' performance: teachers' attitudes towards teaching (for more experienced teachers), their work experience, and their cumulative grade point average. This provide a guideline to the Ministry of Education and related organizations to consider these three factors in the process of teacher evaluation. In fact, appraisal of expert teachers could be different from appraisal of novice

teachers. This implication is supported by what is reported recently by the Omani Ministry of Education and the World Bank in their report "The Drive for Quality" (Ministry of Education, Oman, 2012) which considered the current teacher evaluation process as a challenge that needs to be addressed and modified to fit its purposes. According to findings of specialization group's analysis, retaining teachers in remote areas is one of teachers' challenges that hinder productivity and must be solved in the future to enhance their performance and to benefit from their cumulative experience.

5.5 Recommendations

Predominantly, Omani teachers come from the Sultan Qaboos University (SQU), Ministry of Higher Education, local private university and foreign universities around the Gulf area. Regardless of some individual differences in teachers' related factors, Omani teachers have been for the past twenty years subjected to a formal appraisal by the Ministry of Education. In this matter, the research recommends that the Ministry of Education should develop its own independent teacher-forwarded evaluation system taking into consideration the factors found to be affecting teachers' professional performance as highlighted in the current research.

Changing teachers' attitudes towards their profession is an important matter to be managed among the Omani teachers. Therefore, there is a need to develop a standardized attitudes' scale in the Omani context. Application of these scales in each five-years, can be useful to follow the teachers' change in attitude

towards their profession. That helps to determine those teachers who need to attend the attitude changing programs. Duatepe and Oylum (2004) clarified that teachers' attitudes towards their profession have an effect on their performance, which means that positive or negative attitudes towards the profession can affect achievement. Therefore, teachers' attitudes towards teaching play a critical role in shaping their performance standard.

To activate the role of cumulative grade point average in the issue of qualitative teaching, the decision makers have to keep track and supervise the stages of teachers' learning at the tertiary level. This procedure helps to follow up the teachers' profile from pre-service stage to in-service stage and guarantee good preparation of teachers according to the Omani education philosophy. In this regard, further research is recommended to study if there is any significant difference in the teachers' professional performance according to their cumulative grade point average bearing in mind their graduation institute.

For future researches, appraisal of teachers' professional performance is one of several issues in the Omani context that need to be addressed. This research documented a good relationship between professional performance and teachers' experience and their cumulative grade point average, and by the factor of attitudes towards teaching with expert teachers as well. These three factors should provide the bases for decision makers to review and modify the process of teacher evaluation system; this area needs to be studied in the future to construct and validate new evaluation scales suitable for the Omani context.

In addition, the current study found that teachers, especially those having 1-6 years of experience hold non-significant effects of their attitudes towards teaching on their performance. The estimated standardized path coefficient was 0.02 with *p*-value more than the significant level .05. Teachers those have teaching experience 7 years or more hold acceptable direct effect, 0.18 path coefficient, of teachers' attitudes towards teaching on their professional performance. This result creates the need for further research to identify the effect of teachers' attitudes with advanced experience years on performance.

Some related scholars (e.g., Alavi & Askaripur, 2003; Rad & Yarmohammadian, 2006) found that job satisfaction is an attitude that employees gain in the long term regarding their profession and their organization. Job satisfaction is influenced by many external and internal factors such as the working condition, the salary, the job tasks, the relationships between employees and managers including levels of communication between them, and so forth. More powerful, self-efficacy encompasses a wide range of predictors of professional performance levels for a specific task (Gist & Mitchell, 1992) that have been associated with professional performance (Barling & Beattie, 1983). Therefore, job satisfaction and self-efficacy of Omani teachers need to be addressed in prospective research studies.

It is recommended to use a latent variable model, instead of a path model, to address the research questions in the framework of structural equation modeling of latent factors such as teachers' attitudes towards teaching (TATT) and teachers' professional performance (TPP) factors.

One of the limitation of the current study is the sample size. Indeed, the EFA factor needs to be cross-validated with the use of a confirmatory factor analysis (CFA) using data which is different from the data used with the EFA. So it is recommended to undertake a large sample to split it into two random subsamples.

5.6 Full Dissertation Summary

This manuscript describes a study of 236 second cycle teachers of the basic education system in the Sultanate of Oman. The study was designed to examine the proposed path analytical model of factors affecting teachers' professional performance. The conceptual framework guiding this study was based on the theory of performance (Campbell et al., 1993), theory of reasoned action (Fishbein & Ajzen, 1975), and the history of the theoretical work; related studies. The path model of this research proposes that the teachers' attitudes towards teaching, work experience, in-service training, cumulative grade point average and teachers' self-professional development have a direct effect on the teacher professional performance. More direct effects supposed by the model are the effect of in-service training on work experience, the work experience on self-professional development, and the teachers' attitudes towards teaching on the self-professional development.

Also, the model proposes an indirect effect of teachers' attitude towards teaching on teachers' professional performance through the self-professional development and an indirect effect of in-service training on teachers' professional

performance through their work experience. The relationship between in-service training and self-professional development is supposed to be via the work experience, while the relationship between the work experience and teachers' professional performance is proposed to be through the self-professional development. Four models for four sub-groups were tested according to teachers' gender and specialization.

A variety of statistical procedures were used to derive information regarding the relationship between the study variables. Path analysis approach was used for, a) exploratory factor analysis, b) confirmatory factor analysis, c) path analysis, and d) multiple group analysis. Major findings of the study showed that: (a) the overall sample's model has a good model fit data, (b) the four sub-groups models have a good fit data, (c) for the overall sample, there are only two factors affecting, directly, the teachers performance, namely teachers' work experience, and cumulative grade point average, (d) only one factor has an indirect effect on the teachers performance through the work experience which is the in-service training, (e) in test of groups comparison, there are significant differences between the group of male and female, and between the group of applied sciences' teachers and the human sciences' teachers. The findings were synthesized in terms of a set of major findings and conclusions. Discussion with respect to implications of findings and recommendations for future study were made.

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APPENDIX A

Readings Used for Developing the Teachers' Attitudes Towards Teaching Scale

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APPENDIX B

Mrs. /Mr. ……

Job: ……..

Sub/ Arbitration of Measurement Items

The Researcher is working on developing an instrument to measure teachers' attitudes towards teaching as a career. This research is part of the requirements of PhD degree in Assessment and Evaluation. The attached items represent a preliminary draft of the measurement which was developed based on a review of literature on attitudes and on how to build measurement tools. In addition, the researcher has experience of more than 20 years in teaching and other educational fields as part of his employment with the Omani Ministry of Education.

The Researcher will adopt *Structural Equation Modeling* to investigate the impacts of psychological, academic and employment variables on the professional performance of teachers.

Most of researchers agree on three components when they study attitudes. These components are:

1. *Cognitive component*: It implies ideas, information and situations that the teacher is exposed to during his/her academic life which influence his/her attitudes towards teaching.
2. *Affective component*: It is concerned with emotional and sentimental aspects that help in building the teachers' attitudes towards teaching. Most of the literature indicates a causative relationship between the affective component and the cognitive component. That means any affective aspect has a cognitive basis. The affective component is considered as the most important in the formation of an attitude.
3. *Behavioral component*: It is represented in the teacher's tendency to use teaching techniques that are consistent with his/her knowledge and emotions related to the career and his/her future perspectives. This means

that this component include all behavior related to attitudes and represented in responses resulting from the interactions between cognitive and affective components in such a manner that a teacher either behaves in a positive or a negative way when practicing teaching.

General dimensions adopted by items of the questionnaire:

Measurement items address several dimensions that the Researcher drew upon to address the three components of attitude. These dimensions are summarized as follow:

1. Recognition of the personal perspective of the teacher towards teaching as a career.
2. Recognition of how strong the teacher believes in the importance of the real requirements of teaching as a career.

The Researcher is pleased to present to you the first draft of 55 items intended to measure the attitudes of teachers towards teaching based on the strands mentioned above. I will be very grateful if you provide your ideas with regard to the following points:

1. *The extent to which every item is suitable to measure the attitudes of teachers towards teaching.*
2. *The degree of clarity of the items.*

The Researcher welcomes your advice on anything that improves the questionnaire and the study. You are requested to suggest:

1. *Any modification or addition to any item*
2. *References or other literature related to this topic.*

Thank you very much for your cooperation in this respect.

Said Salim Al Harthy
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University of Malaya
Malaysia
2010

ITEMS LIST

1. Teaching is a profession deserved to be respected.
2. I would be pleased, if my son / daughters wish to be a teacher.
3. I feel I am criticized for being a teacher.
4. I care about using available facilities in school to present an interesting lesson.
5. There is no privilege in teaching.
6. Teaching requires a great deal of creativity and innovation.
7. Teaching is a source of nuisance.
8. I am getting more enthusiastic when a student discusses me the subject.
9. Teaching requires modification of concepts, methods and aids
10. Teaching is a job for whom without a job.
11. I am so happy being surrounded by my students.
12. Diligence in lesson preparation is a waste of time
13. I will be glad to be promoted for a training course in my field of specification
14. Teachers are more aware of their future ambitions and perspectives.
15. I am not with teachers working after duty hours.
16. Teamwork increases my job enthusiasm.
17. The academic upgrading (higher education) will help me to enhance my profession.
18. My profession makes me worth the respect in front of my family and students' parents.
19. I will never feel proud of my job whatever financial facilities I will get
20. Teaching profession worth the effort.

21. No need for exchange a classroom's visits between teachers.
22. I feel proud when I am visited or stopped by parents to ask about their sons / daughters.
23. Many teachers have achieved a lot of success.
24. The presence of teacher trainees makes me proud of my profession.
25. Teaching hinders me from dealing with my daily life.
26. If I were not a teacher, I would hope to be a teacher.
27. I feel safe among my colleagues and students.
28. I will be ready to join any training program, even at my own expense.
29. I do not like talking about teaching problems.
30. It is important for an educational expert to experience teaching for a long time.
31. Teaching makes me active toward the social matters that concern my students and community.
32. Teaching restricts my freedom in dealing with my community.
33. The teacher is a good model to be followed.
34. It frustrates me the delay of the textbooks arrival to the school.
35. I am a teacher so I am respected.
36. For me, teaching is a burden not a profession.
37. I present good lessons only when visitors attend.
38. The concept of "teachers' lifelong learning" grasps my attention.
39. It is so boring to trace students' individual differences.
40. What I am doing is great and has everlasting impacts.

41. Being competent in my field provides me strength in my character.
42. It is a good idea to retire and have good financial facilities.
43. Participating in the parents and teachers council in the school is worthwhile work.
44. I will be proud to be chosen as a trainer in my school or reign.
45. I do not like giving students extra lessons.
46. I yearn to read my advisory visit report immediately.
47. As a teacher, there is no meaning for “comprehensive quality in education”.
48. Teaching is a very impotent profession compared with other official professions.
49. In my point of view, no one pries teaching profession.
50. Giving teachers 'teaching license' after certain year of experience is a good idea.
51. I had good memories of teaching practice in the college.
52. By the end of the day, I should forget all about teaching.
53. Reading and self-development in professional are unimportant to me.
54. Providing suitable teaching conditions will increase my enthusiasm for teaching.
55. Seeing my students in a better job makes me proud.

APPENDIX C

Teachers' Attitudes Towards Teaching Scale

TATTS

English Version

QUESTIONS

Booklet

Developed by

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Kuala Lumpur, Malaysia
2010

"Teachers' Attitudes towards Teaching as a Career" Scale

DIRECTIONS

This scale consists of (36) items developed to know attitudes of teachers toward teaching as a career. There is considerable disagreement as to what these attitudes should be: therefore, there are no right or wrong answers.

What is wanted is your own individual feeling or believing about what each item reflects. Thus, I would ask you to read with care the following directions:

7- ***Do not*** *respond to items in situations of tension or stress in your work.*

8- *Be as relaxed as you are reading items and* ***understand*** *them clearly.*

9- *Answers should be* ***realistically*** *as you feel, not as what it should be.*

10- *There is no limited time for answer, so I hope you* ***choose the right time*** *and respond to* ***every*** *item.*

11- *Your answers will be* ***only*** *for the purpose of this research.*

12- ***Mark*** *your answer on the space provided on the answer sheet****, as follows****:*

- Strongly agree, blacken space under "**SA**"
- Agree, blacken space under "**A**"
- Undecided, blacken space under "**U**"
- Disagree, blacken space under "**D**"
- Strongly disagree, blacken space under "**SD**"

Items	SA	A	U	D	*SD*
1	::::	::::	::::	::::	::::
2	::::	::::	::::	::::	::::
3	::::	::::	::::	::::	::::
4	::::	::::	::::	::::	::::
:					
N	::::	::::	::::	::::	::::

[DO NOT MAKE ANY MARKS ON THIS BOOKLET]

Teachers' Attitudes Towards Teaching Scale

1. Teaching is a profession deserved to be respected.
2. I would be pleased, if my son / daughter wishes to be a teacher.
3. I care about using available facilities in school to present an interesting lesson.
4. There is no privilege in teaching.
5. Teaching is a source of nuisance.
6. Teaching requires modification of concepts, methods and aids
7. Teaching is a job for whom without a job.
8. Diligence in lesson preparation is a waste of time
9. I will be glad to be promoted for a training course in my field of specification
10. Teachers are more aware of their future ambitions and perspectives.
11. Teamwork increases my job enthusiasm.
12. I will never feel proud of my job whatever financial facilities I will get
13. Teaching profession is worth the effort.
14. No need for exchange a classroom's visits between teachers.
15. Many teachers have achieved a lot of success.
16. The presence of teacher trainees makes me proud of my profession.
17. Teaching hinders me from dealing with my daily life.
18. If I were not a teacher, I would hope to be a teacher.
19. I will be ready to join any training program, even at my own expense.
20. Teaching makes me active towards the social matters that concern my students and community.
21. The teacher is a good model to be followed.
22. It frustrates me the delay of the textbooks arrival to the school.
23. I am a teacher so I am respected.
24. For me, teaching is a burden not a profession.
25. What I am doing is great and has everlasting impacts.

26. It is a good idea to retire and have good financial facilities.
27. I do not like giving students extra lessons.
28. I yearn to read my advisory visit report immediately.
29. As a teacher, there is no meaning for “comprehensive quality in education”.
30. Teaching is a very impotent profession compared with other official professions.
31. In my point of view, no one praises the teaching profession.
32. Giving teachers 'teaching license' after certain year of experience is a good idea.
33. I had good memories of teaching practice in the college.
34. By the end of the day, I should forget all about teaching.
35. Providing suitable teaching conditions will increase my enthusiasm for teaching.
36. Seeing my students in a better job makes me proud.

--------- END ---------

"Teachers' Attitudes Towards Teaching Scale"

ANSWER SHEET

Gender		Experience		In-service training		Specialization		CGPA
M	::::	1-3 y	::::	N0	::::	Humanities sciences	::::	
F	::::	4-6 y	::::	1-3 times	::::	Applied sciences	::::	……
		7-10 y	::::	4-6 times	::::			
		> 10 y	::::	> 6 times	::::			

Items	SA	A	U	D	*SD*
1	::::	::::	::::	::::	::::
2	::::	::::	::::	::::	::::
3	::::	::::	::::	::::	::::
4	::::	::::	::::	::::	::::
5	::::	::::	::::	::::	::::
6	::::	::::	::::	::::	::::
7	::::	::::	::::	::::	::::
8	::::	::::	::::	::::	::::
9	::::	::::	::::	::::	::::
10	::::	::::	::::	::::	::::
11	::::	::::	::::	::::	::::
12	::::	::::	::::	::::	::::
13	::::	::::	::::	::::	::::
14	::::	::::	::::	::::	::::
15	::::	::::	::::	::::	::::
16	::::	::::	::::	::::	::::
17	::::	::::	::::	::::	::::
18	::::	::::	::::	::::	::::
19	::::	::::	::::	::::	::::
20	::::	::::	::::	::::	::::

Items	SA	A	U	D	*SD*
21	::::	::::	::::	::::	::::
22	::::	::::	::::	::::	::::
23	::::	::::	::::	::::	::::
24	::::	::::	::::	::::	::::
25	::::	::::	::::	::::	::::
26	::::	::::	::::	::::	::::
27	::::	::::	::::	::::	::::
28	::::	::::	::::	::::	::::
29	::::	::::	::::	::::	::::
30	::::	::::	::::	::::	::::
31	::::	::::	::::	::::	::::
32	::::	::::	::::	::::	::::
33	::::	::::	::::	::::	::::
34	::::	::::	::::	::::	::::
35	::::	::::	::::	::::	::::
36	::::	::::	::::	::::	::::

- Some teachers follow a variety of techniques for Self-development of their professional (SPD) abilities. Do you follow the techniques stated below to develop your professional skills and knowledge:

No.	ITEM	Yes	No
1	Refer back to the supervisor or the senior teacher to gain more knowledge about lessons.		
2	Reading external resources in the field of specialization (books, magazines, periodical etc…)		
3	Visit relevant educational sites and forums on the internet.		
4	Attend on personal basis specialized seminars and workshops.		
5	Read topics published in the Educational Development Bulletin.		
6	Exchange ideas with colleagues on topics related to subject of specialization.		
7	Socialize with experienced teachers and others during workshops and training sessions.		
8	Keep a list of specialized sites to refer to whenever deemed necessary.		
9	Contribute to the design of some learning activities to serve curriculum.		
10	Use self evaluation techniques to identify strengths and weaknesses.		
11	Attend lessons taught by colleagues inside classrooms to gain knowledge and experience.		
12	Keen on gaining knowledge and concepts relevant to lessons before teaching them.		
13	Read about teaching and learning theories.		
14	Make use of summer vacations to read curriculum and get prepared for the new academic year.		
15	Carry out researches on students and their academic attainment.		

APPENDIX F

Teachers Professional Performance Evaluation Form's Elements, OMAN

The (20) elements, included in the TPPEF, are:

- Professionalism and personal behavior (administered by school headmasters):

1- Personal appearance.

2- Acceptance of guidance.

3- Relationship with seniors and colleagues.

4- Relationship with parents and students.

5- Strength of personality and class management.

6- Interest in innovating work strategies.

7- Social interaction inside and outside the school.

8- Keenness on professional development.

- Competency in performance (administered by educational supervisors):

9- Identifying and formatting of lesson objectives.

10- Identifying methods, activities and materials.

11- Monitoring evaluation and linking it to objectives.

12- Mastering the content of the subject.

13- Good use of teaching methods.

14- Skilfullness in evaluation of students' performance.

15- Taking care of activities associated to courses.

16- Using proper language.

17- Sticking to annual work plans.

18- Ability to be creative, innovation and contribute to development.

19- Taking care of monthly records of students' performance.

20- Attendance.

بسم الله الرحمن الرحيم

مقياس اتجاهات المعلمين نحو مهنة التدريس

Teachers' Attitudes towards
Teaching as a career
Scale

TATS

فقرات المقياس

Developed by

SAID SALIM HAMED AL-HARTHY
PhD student
Sultanate of OMAN

Under the supervision of
Dr: Shahrir Jamaluddin
Dep. Of Educational Psychology& Counseling
Faculty of Education
University of Malaya

Kuala Lumpur, Malaysia

مقياس اتجاهات المعلمين نحو مهنة التدريس

أخي المعلم / أختي المعلمة :ـ

يعمل الباحث على دراسة أثر بعض المتغيرات النفسية والأكاديمية والوظيفية على الأداء المهني للمعلمين، وقد طور هذا المقياس المكون من (٥٥) فقرة بهدف التعرف على وجهة نظرك الشخصية (الاتجاه) نحو مهنة التدريس كمهنة تمارسها يومياً كأي موظف في وظيفته وذلك من خلال معرفة درجة موافقتكم على ما تتبناه فقرات المقياس من مكونات معرفية وانفعالية وسلوكية للاتجاه ، وقد تم استخدام تدريج ليكرت Likert الخماسي كما هو مبين أدناه.

وحيث أن لاستجابتكم على هذا المقياس أثر كبير على نتائج الدراسة، فإن الباحث يناشدكم التكرم بالتعامل مع الفقرات وفقاً للتعليمات المبينة وتحري الواقعية التامة، مع ضرورة الإجابة على جميع الفقرات.

تقبلوا منا خالص الشكر والتقدير والامتنان ،

وتمنياتنا لكم بدوام التوفيق،،

الباحث / سعيد بن سالم الحارثي – طالب دكتوراه.

sokoon05@hotmail.com

sokoon2020@yahoo.com

هاتف : 99 71 59 56

التعليمات

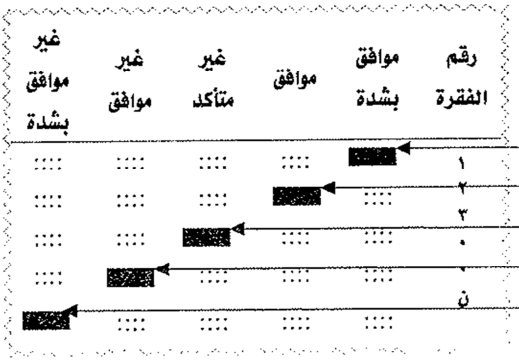
١) الاستجابة للفقرات بواقعية تامة **وفق ما تشعر به فعلاً**، لا وفق ما ينبغي أن يكون.

٢) عدم الاستجابة للفقرات في حالات التوتر أو الانفعال أو أثناء التعرض لضغوط عمل، على أن تستأنف الاستجابة بعد الاسترخاء التام.

٣) لا توجد مدة زمنية للإجابة على المقياس وذلك حرصاً على اختياركم للوقت المناسب للاستجابة.

٤) ستبقى استجاباتكم في حدود أغراض البحث العلمي فقط.

٥) تستخدم ورقة الإجابة المرفقة للاستجابة على الفقرات على النحو الآتي :-



١. التدريس مهنة جديرة بالاحترام.
٢. سأرحب برغبة ابني/ابنتي في أن يكون معلماً.
٣. اشعر بأنني محل انتقاد من قبل الآخرين لكوني معلماً.
٤. أهتم باستغلال الإمكانات المتوفرة في المدرسة لتقديم دروس ممتعه.
٥. لا أجد في مهنة التدريس دافعاً للفخر.

٦. تتطلب مهنة التدريس كثيراً من الإبداع والتجديد.
٧. التدريس مصدر إزعاج لي.
٨. أزداد حماساً عندما يحاورني أحد التلاميذ في المادة الدراسية.
٩. تتطلب مهنة التدريس التنويع في المفاهيم والوسائل والأساليب.
١٠. أعتقد بأن التدريس مهنة لمن لا مهنة له.

١١. يسعدني وجودي بين تلاميذي.
١٢. الاجتهاد في إعداد الدروس مضيعة للوقت..
١٣. سيسعدني ترشيحي لدورة تدريبية في مجال التخصص.
١٤. أعتقد بأن المعلم أكثر وعياً بطموحاته وتطلعاته المستقبلية.
١٥. لا يستهويني حرص بعض المعلمين على العمل بعد ساعات الدوام الرسمي.

١٦. يزيدني العمل الجماعي في المدرسة حماساً للمهنة.
١٧. أرحب بالتأهيل الأكاديمي (الدراسات العليا) من أجل إعطاء المهنة حقها.
١٨. مهنتي تجعلني محل تقدير أسرتي وأولياء أمور التلاميذ.
١٩. لن أشعر بالفخر نحو مهنتي مهما كانت المزايا المالية.
٢٠. مهنة التدريس تستحق ما يبذل من أجلها.

مقياس اتجاهات المعلمين نحو مهنة التدريس ورقة الإجابة

رقم الفقرة	موافق بشدة	موافق	غير متأكد	غير موافق	غير موافق بشدة
١	::::	::::	::::	::::	::::
٢	::::	::::	::::	::::	::::
٣	::::	::::	::::	::::	::::
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٥	::::	::::	::::	::::	::::
٦	::::	::::	::::	::::	::::
٧	::::	::::	::::	::::	::::
٨	::::	::::	::::	::::	::::
٩	::::	::::	::::	::::	::::
١٠	::::	::::	::::	::::	::::
١١	::::	::::	::::	::::	::::
١٢	::::	::::	::::	::::	::::
١٣	::::	::::	::::	::::	::::
١٤	::::	::::	::::	::::	::::
١٥	::::	::::	::::	::::	::::
١٦	::::	::::	::::	::::	::::
١٧	::::	::::	::::	::::	::::
١٨	::::	::::	::::	::::	::::
١٩	::::	::::	::::	::::	::::
٢٠	::::	::::	::::	::::	::::

٢١. لا جدوى من تبادل الزيارات الصفية بين الزملاء.
٢٢. أشعر بالفخر عندما يزورني أو يستوقفني أحد أولياء الأمور ليسأل عن ابنه/بنته.
٢٣. أعتقد بأن هناك معلمين حققوا الكثير من النجاحات.
٢٤. حضور الطلبة المتدربين في مهنة التدريس يشعرني بالفخر والاعتزاز تجاه مهنتي.
٢٥. التدريس يعيق من تفاعلي مع معطيات حياتي اليومية.

٢٦. لو لم أكن معلماً لتمنيت أن أكون معلماً.
٢٧. وجودي في المدرسة بين زملائي وتلاميذي يشعرني بالأمان.
٢٨. سأكون مستعدا لدخول أي برنامج تدريبي متخصص حتى ولو كان على نفقتي الخاصة.
٢٩. يزعجني كثرة حديث الزملاء عن قضايا التدريس.
٣٠. إن من الأهمية بمكان أن يكون الخبير التربوي ممارساً لمهنة التدريس لوقت طويل.

٣١. مهنة التدريس تجعلني فاعلا نحو القضايا الاجتماعية التي تهم تلاميذي ومجتمعي.
٣٢. يحدّ التدريس من حريتي في التعاطي مع المجتمع.
٣٣. أعتقد بأن المعلم نموذج للقدوة الحسنة.
٣٤. يزعجني تأخر وصول دليل المعلم مع بداية العام.
٣٥. أنا معلم إذاً فأنا محترم.

٣٦. التدريس بالنسبة لي محنة وليس مهنة.
٣٧. أقدم الدروس الجيدة عند زيارة المسؤولين فقط.
٣٨. يثير اهتمامي مفهوم " التعلم مدى الحياة للمعلم".
٣٩. تقصّي الفروق الفردية بين التلاميذ عملية مملة بالنسبة لي.
٤٠. أؤمن بأن ما أقوم به يعد بمثابة رسالة خالدة وعظيمة.

رقم الفقرة	موافق بشدة	موافق	غير متأكد	غير موافق	غير موافق بشدة
٢١	::::	::::	::::	::::	::::
٢٢	::::	::::	::::	::::	::::
٢٣	::::	::::	::::	::::	::::
٢٤	::::	::::	::::	::::	::::
٢٥	::::	::::	::::	::::	::::
٢٦	::::	::::	::::	::::	::::
٢٧	::::	::::	::::	::::	::::
٢٨	::::	::::	::::	::::	::::
٢٩	::::	::::	::::	::::	::::
٣٠	::::	::::	::::	::::	::::
٣١	::::	::::	::::	::::	::::
٣٢	::::	::::	::::	::::	::::
٣٣	::::	::::	::::	::::	::::
٣٤	::::	::::	::::	::::	::::
٣٥	::::	::::	::::	::::	::::
٣٦	::::	::::	::::	::::	::::
٣٧	::::	::::	::::	::::	::::
٣٨	::::	::::	::::	::::	::::
٣٩	::::	::::	::::	::::	::::
٤٠	::::	::::	::::	::::	::::

٤١. التمكن من مادتي التدريسية يشعرني بقوة الشخصية.
٤٢. أعتقد بأن التقاعد مع الحصول على امتيازات مناسبة فكرة صائبة.
٤٣. إن مشاركتي في مجالس الآباء والمعلمين عمل ذو قيمة.
٤٤. سيشعرني بالفخر اختياري مدرباً لزملائي في المدرسة أو المنطقة.
٤٥. إعطاء التلاميذ دروس تقوية إضافية عمل مزعج.

٤٦. أتشوق لقراءة تقرير الزيارة الإشرافية أولاً بأول.
٤٧. مفهوم الجودة الشاملة في التعليم لا يعني لي شيئاً كمعلم.
٤٨. التدريس أهم من أي وظيفة مكتبية في مؤسسة ما.
٤٩. لا أعتقد بأن هناك من يمتدح مهنة التدريس.
٥٠. فكرة إعطاء المعلم رخصة مزاولة المهنة بعد خبرة معينة فكرة صائبة.

٥١. أحتفظ بذكرى جميلة لدروس التدريب العملي في الكلية.
٥٢. أعتقد بأن عليّ نسيان كل ما يتعلق بالمهنة بمجرد انتهاء اليوم الدراسي.
٥٣. القراءة والتعلم الذاتي لا يزيدانني إلا عبئاً.
٥٤. توفر الظروف المناسبة للتدريس سيزيد من حماسي.
٥٥. أشعر بالفخر عندما أرى أحد تلاميذي يعمل في وظيفة جيدة.

رقم الفقرة	موافق بشدة	موافق	غير متأكد	غير موافق	غير موافق بشدة
٤١	::::	::::	::::	::::	::::
٤٢	::::	::::	::::	::::	::::
٤٣	::::	::::	::::	::::	::::
٤٤	::::	::::	::::	::::	::::
٤٥	::::	::::	::::	::::	::::
٤٦	::::	::::	::::	::::	::::
٤٧	::::	::::	::::	::::	::::
٤٨	::::	::::	::::	::::	::::
٤٩	::::	::::	::::	::::	::::
٥٠	::::	::::	::::	::::	::::
٥١	::::	::::	::::	::::	::::
٥٢	::::	::::	::::	::::	::::
٥٣	::::	::::	::::	::::	::::
٥٤	::::	::::	::::	::::	::::
٥٥	::::	::::	::::	::::	::::

أخي المعلم / أختي المعلمة :

يتّبع بعض المعلمين عدد من الأساليب المتوفرة لتطوير قدراتهم المهنية ذاتياً، فهل أنت ممن يقومون بأتباع الأساليب المدرجة أدناه لتطوير مهاراتك ومعارفك المهنية ؟ (ضع علامة X).

م	الفقرة	نعم	لا
١	مراجعة المشرف التربوي أو المعلم الأول للاستزادة حول الدروس.		
٢	القراءة الخارجية في مجال التخصص (كتب – مجلات – دوريات ...الخ).		
٣	تصفح مواقع الإنترنت والمنتديات التربوية ذات العلاقة.		
٤	حضور المشاغل والندوات المتخصصة بطريقة شخصية.		
٥	الإطلاع على الموضوعات التي تقدمها نشرة التطوير التربوي.		
٦	التشاور مع الزملاء حول موضوعات المادة التخصصية.		
٧	مخالطة ذوي الخبرة من المعلمين وغيرهم أثناء انعقاد مشاغل وورش العمل.		
٨	الاحتفاظ بقائمة للمواقع الإلكترونية المتخصصة للرجوع إليها عند الحاجة		
٩	المشاركة في تصميم بعض الأنشطة المنهجية لخدمة المنهاج.		
١٠	استخدام التقييم الذاتي للوقوف على مواطن القوة والضعف لديك.		
١١	حضور حصص مشاهدة صفية مع الزملاء لغرض الاستفادة.		
١٢	الحرص على الإلمام بالمعارف والمفاهيم المتعلقة بالدرس قبل تقديمه.		
١٣	القراءة حول نظريات التعليم والتعلم.		
١٤	استغلال إجازة الصيف لقراءة المنهج والاستعداد للعام الجديد.		
١٥	إجراء بعض البحوث المصغرة حول الطلاب ومستوياتهم التحصيلية.		

البيانات الوظيفية

الجنس	مجال التخصص	الخبرة التدريسية
ذكر ::::	علوم إنسانية ::::	١ — ٣ سنة ::::
أنثى ::::	علوم تطبيقية ::::	٤ — ٦ سنة ::::
رقم الملف		٧ — ١٠ سنة ::::
		أكثر من ١٠ سنوات ::::

التدريب في الخدمة	جهة التخرج	المعدل التراكمي
لا يوجد ::::	جامعة السلطان ::::	.....
١ — ٣ مرة ::::	كليات التربية ::::	
٤ — ٦ مرة ::::	خارج السلطنة ::::	
أكثر من ٦ مرات ::::		

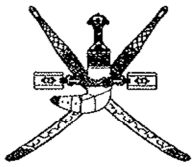
تأكد من أنك قمت بتعبئة كافة البيانات المطلوبة أعلاه

يتفق غالبية المتخصصين في دراسة الاتجاهات على أن للاتجاه ثلاث مكونات، هي:

- المكّون المعرفي. (COGNITIVE COMPONENT)
ويتضمن الأفكار والمعلومات والخبرات والمواقف التي يتعرض لها المعلم خلال دراسته الأكاديمية والتي تؤثر في وجهة نظره نحو مهنة التدريس .

- المكّون الوجداني (الانفعالي) (AFFECTIVE COMPONENT)
هو يشير إلى النواحي الشعورية والعاطفية التي تساعد في بناء درجة واتجاه تعلق المعلم بمهنة التدريس . وتشير معظم الأدبيات إلى وجود علاقة سببية بين المكون الوجداني والمكون المعرفي، أي أن لكل جانب وجداني أساس معرفي. كما ويعتبر المكون الوجداني من أكثر المكونات أهمية بالنسبة للاتجاه.

- المكّون السلوكي. (BEHAVIORAL COMPONENT)
ويتمثل بنزعة المعلم السلوكية نحو مهنة التدريس بما يتسق مع معارفه وانفعالاته المتعلقة بالمهنة وبالنظرة إلى مستقبلها.
أي أن هذا المكون يتضمن جميع الاستعدادات السلوكية المرتبطة بالاتجاه والمتمثلة بالاستجابات الناتجة عن التفاعل بين المكونين المعرفي والوجداني، بحيث يسلك المعلم سلوكا ايجابيا أو سلبيا عند ممارسته لمهنته.



سلطنة عمان
وزارة الخدمة المدنية

نموذج تقويم الأداء الوظيفي رقم (٤)

لأعضاء هيئة التدريس

(و خ م/ت ا - ٤/١٩٩١)

بسم الله الرحمن الرحيم

نمـوذج تقـويم الأداء الوظيـفي رقم (٤)
اعضـــاء هيئـــة التدريس

معلومات أساسية :

(١) الفترة التى يشملها هذا التقرير : من : ..... إلى : .....

الوزارة : .....

المدرسه : ..... الولاية : .....

المنطقـة : ..... المحافظة : .....

(٢) اسـم المعلم : ..... الجنسية : .....

رقـم الملـف : ..... تاريخ الميـلاد : .....

تاريخ التعيين : ..... الوظيفة : .....

الدرجـــة : ..... الحلقة : ..... تاريخ شغلها : .....

(٣) المواد والصفوف التى يدرسها :

المـــــادة	الصـــــفوف	عـدد الحصص

(٤) المؤهلات العلمية :

ترصد الشهادات العلمية الثلاث الأخيرة ، ويبدأ بأحدثها :

اسم الشهادة العلمية	التخصص	سنة الحصول على المؤهل	المدرسة/ المعهد/ الجامعة

(٥) الدورات التدريبية :

ترصد الدورات التدريبية التى شارك فيها المعلم في ظرف الثلاث سنوات الأخيرة ، ويبدأ بأحدثها:

موضوع الدورة التدريبية	مدتها		المعهد/المؤسسة	مسمى الشهادة التدريبية
	من	إلى		

(أ) القدرات الذاتية والسلوك الشخصي : (يعبأ بواسطة مدير المدرسة)

عناصر التقويم : **التقدير**

(١) الاهتمام بالمظهر :

مهتم دائما	مهتم في معظم الاحيان	مهتم الا في حالات نادرة	لايهتم في حالات كثيرة	غير مهتم
٥	٤	٣	٢	١

(٢) تقبل التوجيه والارشاد:

متفهم ومتقبل دائما	متفهم ومتقبل في معظم الاحيان	درجة متوسطة في قبول التوجيه	غير متقبل للتوجيه في حالات كثيرة	لا يتقبل التوجيه والارشاد
٥	٤	٣	٢	١

(٣) العلاقات مع الرؤساء والزملاء :

ممتازة	جيدة	متوسطة	دون المطلوب	غير مُرضية
٥	٤	٣	٢	١

(٤) العلاقات مع أولياء الأمور والطلاب :

ممتازة	جيدة	متوسطة	دون المطلوب	غير مُرضية
٥	٤	٣	٢	١

التقدير

	ممتـــازة	جيـــدة	متوسطـــة	دون المطلوب	غير مُرضية	
(٥) قوة الشخصية وإدارة الصف :	٥	٤	٣	٢	١	

	حريص دائما على التجديد	رغبة جيدة في التجديد	متوسط الرغبة في التجديد	محدود الرغبة في التجديد	ضعيف الرغبة في التجديد	
(٦) الرغبة في التجديـــد في أساليب العمل :	٥	٤	٣	٢	١	

	درجة عالية من التفاعل الايجابي	درجة جيدة من التفاعل الايجابي	متوسط الرغبة في النشاط	دون المستوى المطلوب في النشاط	تفاعل سلبي	
(٧) النشاط الاجتماعي المدرسي والبيئى :	٥	٤	٣	٢	١	

	شديد الحرص على التدريب والاطلاع والتثقيف	حريص على التدريب والإطلاع والتثقيف	متوسط الحرص على التدريب والاطلاع والتثقيف	ضعيف الرغبة في التدريب والاطلاع والتثقيف	غير حريص على التدريب والاطلاع والتثقيف	
(٨) الحرص على النمـــو المهني :	٥	٤	٣	٢	١	

المجموع

(ب) كفـــاءة الأداء : (يعبأ بواسطة الموجه ومدير المدرسة)

عنـــاصر التقويم :

التقدير

(٩) التحضير لموضوعات الدروس :

	دقيق دائما	دقيق في معظـم الاحيان	متوسط الاهتمـام بالاهـداف وصياغتها	ضعيف الاهتمام بالاهداف وصياغتها	غير مهتم	
(أ) تحديد وصياغة الأهداف :	٥	٤	٣	٢	١	

	حريص دائمـا	حريص معظم الاحيان	متوسط الاهتمام	لا يحرص في كثير من الاحيان	غيـر مهتـم	
(ب) تحديد الأساليب والانشطة والوسائل :	٥	٤	٣	٢	١	

التقدير

(جـ) رصد التقويم وربطه بالأهداف:	ممتاز	جيد	متوسط	دون المطلوب	غير مهتم	
	٥	٤	٣	٢	١	
(١٠) التمكن من المادة العلمية:	معرفة متكاملة	معرفة جيدة	معرفة متوسطة	دون المطلوب	قليل المعرفة	
	٥	٤	٣	٢	١	
(١١) حسن استخدام طرق ووسائل التدريس :	فائق المهارة	ماهر	متوسط المهارة	دون المطلوب	ضعيف المهارة	
	٥	٤	٣	٢	١	
(١٢) المهارة في تقويم أداء الطلاب :	فائق المهارة	ماهر	متوسط المهارة	دون المطلوب	ضعيف المهارة	
	٥	٤	٣	٢	١	
(١٣) الاهتمام بالانشطة المرتبطة بالمقررات الدراسية :	مهتم دائما	مهتم معظم الاحيان	متوسط الاهتمام	لايحرص في اكثر الاحيان	غير مهتم	
	٥	٤	٣	٢	١	
(١٤) استخدام اللغة السليمة :	شديد الحرص	حريص في معظم الاحيان	متوسط الاهتمام	لا يحرص في اكثر الاحيان	غير مهتم	
	٥	٤	٣	٢	١	
(١٥) الالتزام بخطة العمل السنوية :	ملتزم دائما	ملتزم معظم الاحيان	متوسط الالتزام	لا يلتزم بخطة العمل في اكثر الاحيان	غير ملتزم	
	٥	٤	٣	٢	١	
(١٦) القدرة على المبادأة والابتكار والاسهام في التطوير.	مبادر دائما	يبادر ويسهم في اكثر الاحيان	يبادر احيانا	نادرا ما يبادر	لا يبادر مطلقا	
	٥	٤	٣	٢	١	

التقدير

	يهتم دائما	يهتم في اكثر الاحيان	متوسط الاهتمام	لايهتم في اكثر الاحيان	لا يهتم مطلقا	
(١٧) الاهتمام بسجلات المستويات الشهرية وتوظيفها:	٥	٤	٣	٢	١	
(١٨) المواظبة على العمل والالتزام بمواعيد الدوام الرسمي:	مواظب وملتزم بالمواعيد دائما	مواظب في معظم الاحيان	مواظب عموما	مواظب إلى حد ما	كثير التغيب	
	٥	٤	٣	٢	١	

المجموع الكلي

* الرجاء أن تثبت بعض الأمثلة ، التي تبرز مواطن القوة (العناصر الايجابية) ومواطن الضعف (العناصر السلبية)، لاسيما في الحالات التي كان فيها تقديرك في الدرجات القصوى أو الحد الأدنى :

* **التقدير الكلي للمعلم :**

- ممتاز : من ٩٠ إلى ١٠٠ درجة
- جيد جدا : من ٨٠ إلى أقل من ٩٠ درجة
- جيد : من ٧٠ إلى أقل من ٨٠ درجة
- مقبول : من ٥٥ إلى أقل من ٧٠ درجة
- ضعيف : أقل من ٥٥ درجة

* **في ضوء ماتوصلت إليه من تقويم للقدرات الذاتية وأداء المعلم ، هل تعتقد أن هذا المعلم :**

☐	مؤهلاته وقدراته الحالية لا تؤهله لتحمل مهام ومسؤوليات أعلى.
☐	وضع فى الدرجة المناسبة مع امكاناته وقدراته.
☐	قد اتقن عمله الحالى وتؤهله قدراته لتحمل مسؤوليات أعلى.

* **توصيات :** في ضوء مابينت من العناصر الايجابية أو السلبية في القدرات الذاتية وأداء المعلم ، بين كيفية دعم الجوانب الايجابية والتغلب على الجوانب السلبية مع تحديد نوعية الدورات التدريبية ، إذا كان ذلك من ضمن إقتراحاتك:

_____

_____

_____

_____

_____

_____

اسم مدير المدرسة : _____ التوقيع : _____ التاريخ : _____

اسم الموجه : _____ التوقيع : _____ التاريخ : _____

* **ملاحظات الرئيس الأعلى :**

_____

_____

_____

_____

_____

الاسم : _____ التوقيع : _____

الوظيفة : _____ التاريخ : _____

(٧)

ملاحظـــات لجنة شؤون الموظفين

توقيع عضو اللجنة : ..... توقيع عضو اللجنة : .....

توقيع عضو اللجنة : ..... توقيع رئيس اللجنة : .....

التاريخ : .....

اعتماد رئيس الوحـــدة

التوقيـع : _____

التـاريـخ : _____

(٨)

إرشادات عامـــة
بشأن كيفية رصد المعلومات في النموذج (٤)
وما يتصل بذلك من اجراءآت

١ – تكمل المعلومات الاساسية المتصلة بالبنود ١ ، ٢ ، ٣ ، ٤ ، ٥ من النموذج إدارة / وحدة شئون الموظفين وفقا للمعلومات المثبتة في سجل المعلم.

٢ – يضع مدير المدرسة / الموجه علامة (✓) في المربع الذي يمثل درجة تقديره لمستوى المعلم في كل عنصر من عناصر التقويم ، ثم يرصد ذات الرقم في المربع المُعد لذلك تحت عنوان التقدير.

٣ – التقدير الكلي للدرجات يسجل في المربع المخصص لذلك عند نهاية تقويم كل العناصر .

٤ – الامثلة المطلوبة لابراز مواطن القوة ومواطن الضعف في أداء وقدرات وسلوك المعلم ينبغى ان تعتمد على وقائع محددة حدثت فعلا .

مثـــــال : معلم حصل على الدرجة القصوى (٥) في تقويم أداء الطلاب.
(يقوم هذا المعلم بتقويم أسبوعى لأداء الطلاب في الفصل ، ويحرص على التحدث لكل طالب مشجعا للمتفوقين ، ومنبها لمن تقل نتائجهم عن درجة مقبول لبذل المزيد من الجهد ، ويحرص على متابعة ذلك).

ومثال آخر : معلم حصل على الدرجة الأدنى (١) في المواظبة على العمل والالتزام بمواعيد الدوام الرسمي. (كما يثبت دفتر الدوام فان هذا المعلم يتغيب ـ في المتوسط ـ ثلاثة أيام من كل شهر دون ابداء أسباب. يضاف إلى ذلك أنه غير ملتزم بساعات العمل الرسمية في أكثر الاحيان . لقد تم تنبيهه إلى ذلك شفهيا وكتابيا ولكنه ظل غير ملتزم بساعات العمل الرسمية).

٥ – البند الخاص بالتوصيات لدعم العناصر الايجابية والتغلب على العناصر السلبية ، ينبغى أن يرصد توصيات دقيقة محددة سواء أكان ذلك في التدريب ، أو غيره من النظم الوظيفية.

٦ – **بعد اعتماد التقرير** : يُعلم كتابة كل معلم حصل على مرتبة «ضعيف» ، وأن تحدد له جوانب الضعف ليتسنى له معالجتها ، أو الحد منها على أقل تقدير.

٧ – يُحفظ التقرير بملف المعلم ، ويفاد من النتائج والتوصيات الواردة فيه في كل الحالات المتصلة بإدارة الموارد البشرية ، والتى تطرأ خلال سنة من تاريخ اعداد التقرير.